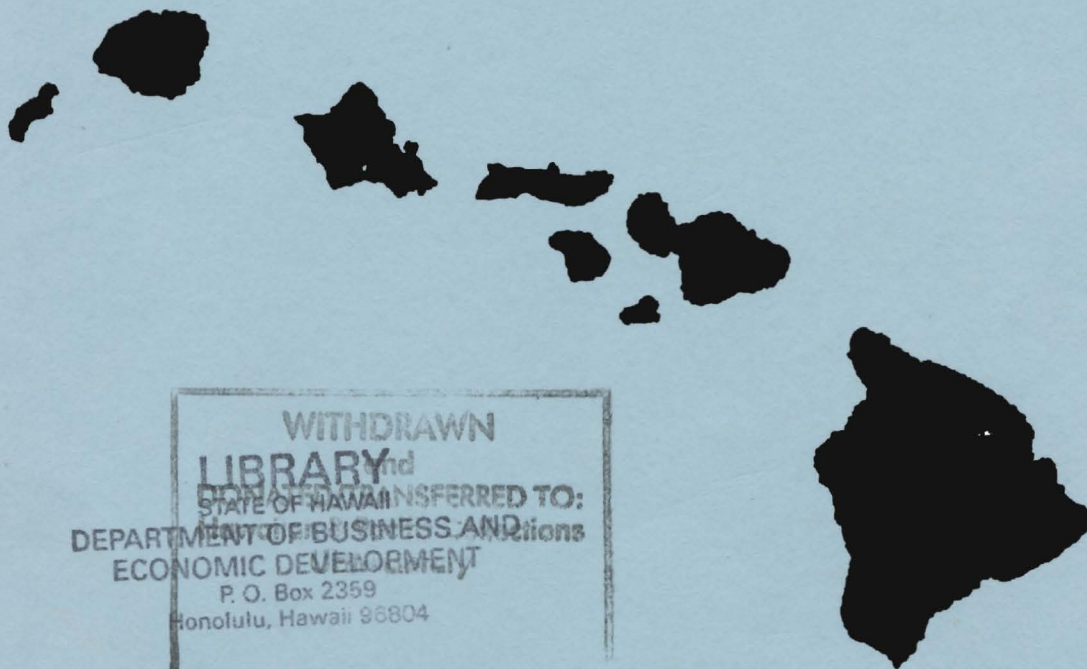


**HAWAII WATER PLAN**

# **STATE WATER PROJECTS PLAN**



**Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii**



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*Prepared by:*  
***Fukunaga and Associates, Inc.***



***Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii***

**June 1990**





**JOHN WAIHEE**

Governor

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June 1990

## Preface

In 1987, the State Legislature passed the State Water Code (HRS Chapter 174C) to protect and manage Hawaii's surface and ground water resources. Part III of the State Water Code calls for the formulation of a Hawaii Water Plan, an integrated program for the protection, conservation, and management of the waters of the State. The **State Water Projects Plan** is one of seven subplans which collectively comprise the Hawaii Water Plan, and will serve as a continuing long-range guide for water resource management.

On June 27, 1990, the State Commission on Water Resource Management adopted the State Water Projects Plan for incorporation into the Hawaii Water Plan, with the following stipulations:

- (1) The State Water Projects Plan will be reviewed and revised as necessary by the Department of Land and Natural Resources (DLNR) by July 1, 1991. Thereafter, the DLNR will review and make necessary revisions to the State Water Projects Plan every two years in concert with the updating and refinement of the Hawaii Water Plan.
- (2) Projects identified as DLNR projects in the State Water Projects Plan will be reclassified as "State" projects.

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## **SECTION 1 - INTRODUCTION**

### **1.1 BACKGROUND**

#### **1.1.1 Legislative History**

The State Constitution, Article XI Section 7 mandates that the State of Hawaii is responsible to project, control, and regulate the use of Hawaii's water resources for the benefit of its people. Pursuant to this mandate, Act 45, the State Water Code, was signed into law on July 1, 1987 by the Fourteenth Legislature. The Act is now codified as Chapter 174C, Hawaii Revised Statutes.

#### **1.1.2 State Water Code**

The State Water Code calls for the establishment of a six member Commission on Water Resource Management to have exclusive jurisdiction and final authority relating to the implementation and administration of the Code. To guide the Commission in executing its general powers, duties, and responsibilities, the Code requires the formulation of a Hawaii Water Plan.

#### **1.1.3 Hawaii Water Plan**

The Hawaii Water Plan shall serve as a continuing long-range guide for water resource management. The Hawaii Water Plan shall consist of four parts (or plans):

- (1) Water resource protection
- (2) County water use and development
- (3) State water projects
- (4) Water quality

The State Water Code requires that the above elements be prepared and integrated into one master plan which shall be known, as previously stated, as the Hawaii Water Plan. By statute, Section 174C-32, HRS, the Hawaii Water Plan shall be completed and adopted by the Commission prior to July 1990.

#### **Water Resources Protection Plan**

The Commission on Water Resources Management shall prepare a Water Resources Protection Plan which shall include the following:

- (1) The designation of hydrologic units statewide and their hydrologic characteristics.

- (2) A master inventory describing the nature and location of water resources in the state by hydrologic units, current water uses statewide, and water quality data as provided by the Department of Health's Water Quality Plan.
- (3) Requirements for beneficial instream uses and environmental protection, desirable uses worthy of preservation by permit, and undesirable uses for which permits may be denied.
- (4) Programs to conserve, augment, and protect water resources throughout the State.

The study shall ultimately include the means and methods of conserving and augmenting the State's water resources.

#### County Water Use and Development Plan

Each of the four counties shall prepare and adopt by ordinance a Water Use and Development Plan (WUDP). The WUDP would generally set forth the allocation of water to land use in each respective county.

In general, the WUDP of each county shall cover four basic subject areas:

1. Description of county resources and economy;
2. Inventory of current water usage and developments;
3. Future plans for land use and associated water needs;
4. Program of water developments to meet future needs.

Water Use and Development Plans shall be prepared in a manner consistent with the following conditions:

1. Each WUDP will be consistent with the Water Resource Protection Plan and the Water Quality Plan;
2. Each WUDP will be consistent with the respective county land use plans and policies, including the general plan, regional development plans, and zoning ordinance as determined by each respective county;
3. Each county WUDP will also be consistent with the State land use classification and policies;
4. The cost of updating and maintaining and WUDPs will be borne by the counties; State water capital improvement funds appropriated to the counties will be deemed to satisfy Article VIII, Section 5 of the State Constitution.

## State Water Projects Plan

The State Water Projects Plan, as specified in the State Water Code, shall include:

- (1) "The status of state water and land developments and their existing water use requirements for domestic, industry, agriculture, aquaculture, hydropower, water reclamation, and recharge.
- (2) Future land uses and related water needs.
- (3) Statewide plans for water developments including recommended and alternative plans, costs, adequacy of plans, and relationship to the water resource protection plan and the water quality plan."

The State Water Projects Plan shall review current and future state water programs and projects to insure orderly authorization and development of the state's water resources. The Department of Land and Natural Resources has been designated to develop the State Water Projects Plan.

## Water Quality Plan

The Department of Health shall prepare a State Water Quality Plan for all existing and potential sources of drinking water. The Water Quality Plan shall set forth the water quality criteria to be used in designation of water management areas.

## **1.2 OBJECTIVE OF THE STATE WATER PROJECTS PLAN**

The primary objective of the State Water Projects Plan is to provide a framework for the planning and implementation of State water development program. The State Water Projects Plan should be consistent with the Water Resources Protection Plan and the Water Quality Plan, and be coordinated with the Counties' Water Use and Development Plans.

## **1.3 ELEMENTS OF THE STUDY**

### **1.3.1 Inventory of Existing Systems**

The initial phase of the study involves the compilation of available information of existing water systems owned and/or operated by the State of Hawaii. An inventory of existing State water systems was conducted to assess the extent of the State's current water-related operations.



### 1.3.2 Inventory of Proposed Projects

An inventory of proposed State projects was taken to project the future water requirements associated with State sponsored programs. Projects with potentially significant impact on water resources were identified and included in the inventory.

### 1.3.3 Assessment of Future Needs

Upon completion of the inventory phase of the study, an assessment of the future water requirements of the selected projects was performed. Estimated water demands were determined using the best available information. It should be noted that this is an initial effort to quantify the future water requirements and the values derived herein should be reevaluated as the specific projects become more well defined.

### 1.3.4 State Water Development Plan

The projected water requirements for State projects were determined for the various hydrologic units to provide insight as to where future water demands are most significant. The State project projections combined with the Counties' water use projections should give an indication of potential critical areas requiring more detailed evaluation.

## SECTION 2 - EXISTING STATE WATER SYSTEMS

### 2.1 GENERAL

The vast majority of existing State facilities including schools, office buildings, airports, harbors, housing projects and institutions are served by water systems owned and operated by the respective counties. The County water agencies are specifically organized to manage, maintain and operate water systems and are usually more capable of efficiently providing water service. However, in areas where the Counties do not have distribution systems, other purveyors, including State, Federal or private agencies, must provide water service to their respective facilities.

An inventory of existing State owned and operated water systems was conducted to assess the extent of the State's current water-related operations. Information on existing water uses and sources registered by the State were also compiled and are presented herein.

### 2.2 REGISTERED STATE WATER SOURCES

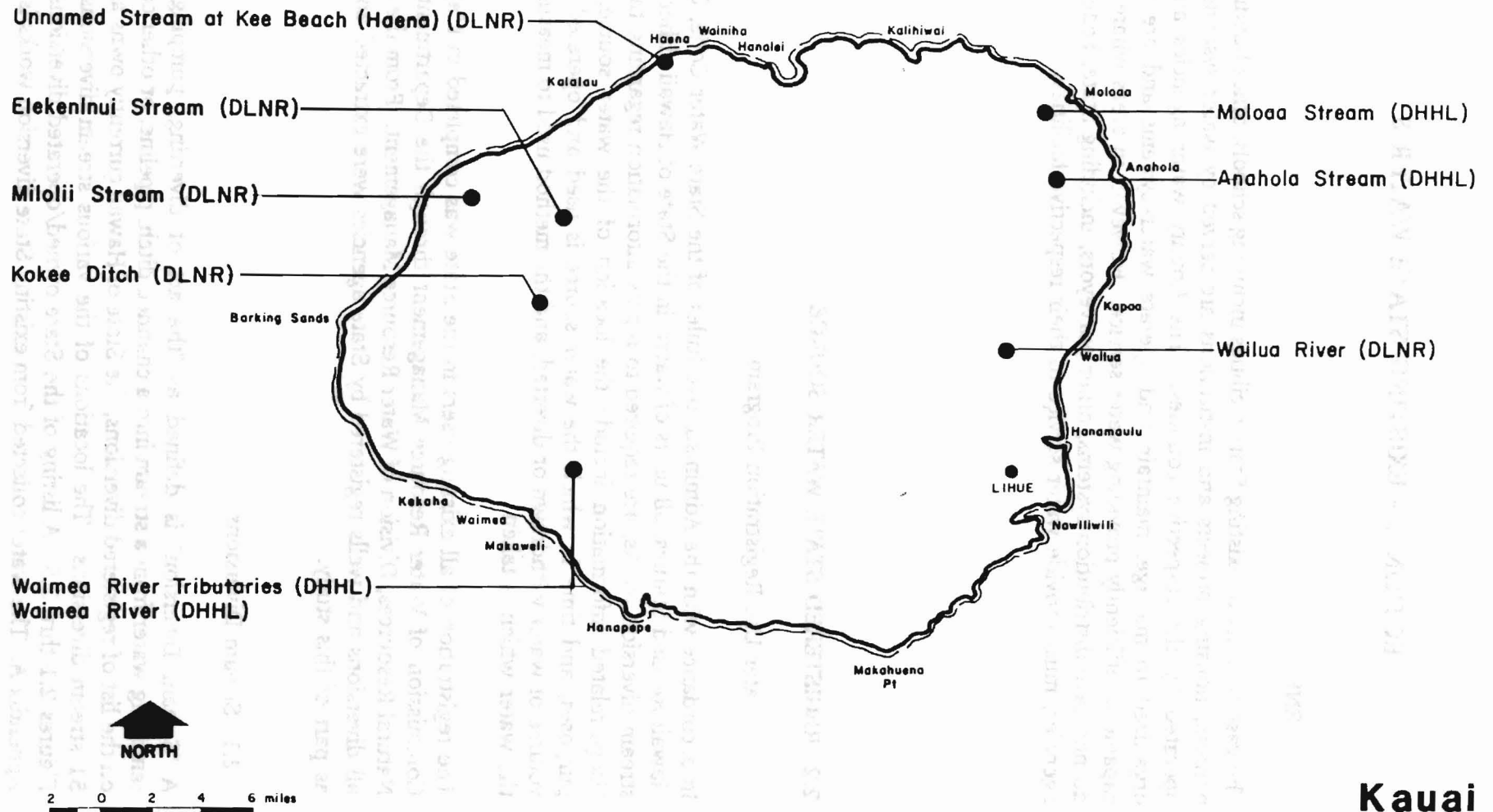
#### 2.2.1 Water Use Registration Program

In accordance with the Administrative Rules of the State Water Code, Chapter 174C, Hawaii Revised Statutes, all users of water, in the State of Hawaii either from wells or stream diversion works, are required to report information regarding their water use. Usage-related information include the location of the water source, the manner, purposes, and time in which the water source is used and operated, the rate and volume of water withdrawn or diverted, and the method used to measure and control the water which is taken.

The registration of all existing users in the State was completed in May 1989 by the Commission of Water Resource Management through the Department of Land and Natural Resources, Division of Water Resource Management. From the compiled lists, all diversions and wells registered by State agencies were extracted and summarized as part of this study.

#### 2.2.1 Stream Diversions

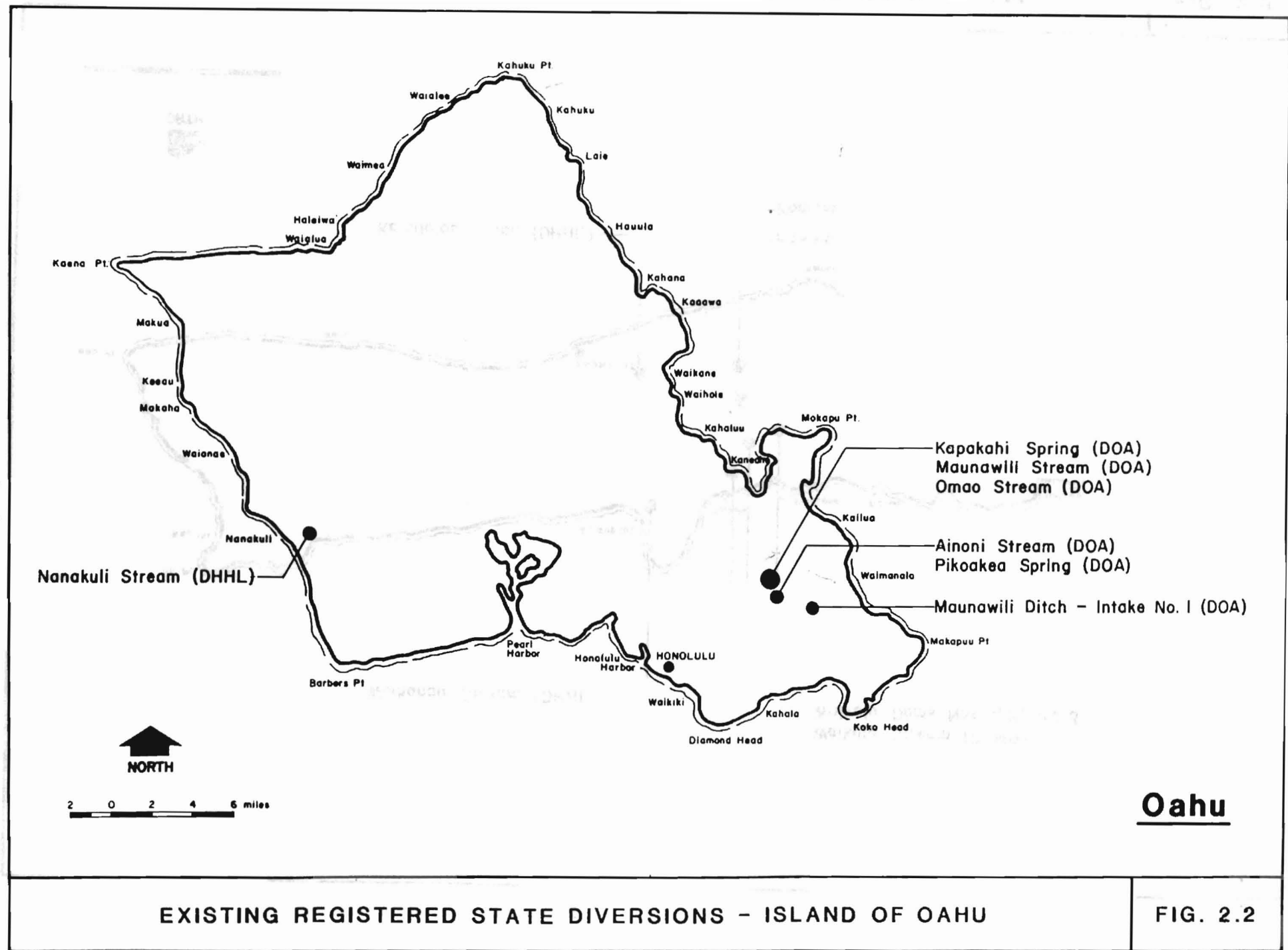
A "Stream Diversion" is defined as "the act of diverting, pumping or otherwise removing water from a stream into a channel, ditch, pipeline, or other conduit." Based on the list of registered diversions, the State of Hawaii currently owns and/or operates 51 stream diversions. The locations of the various stream diversions are shown in Figures 2.1 thru 2.5. A listing of the State owned/operated diversions is included in Appendix A. The water collected from existing State diversion works is used primarily



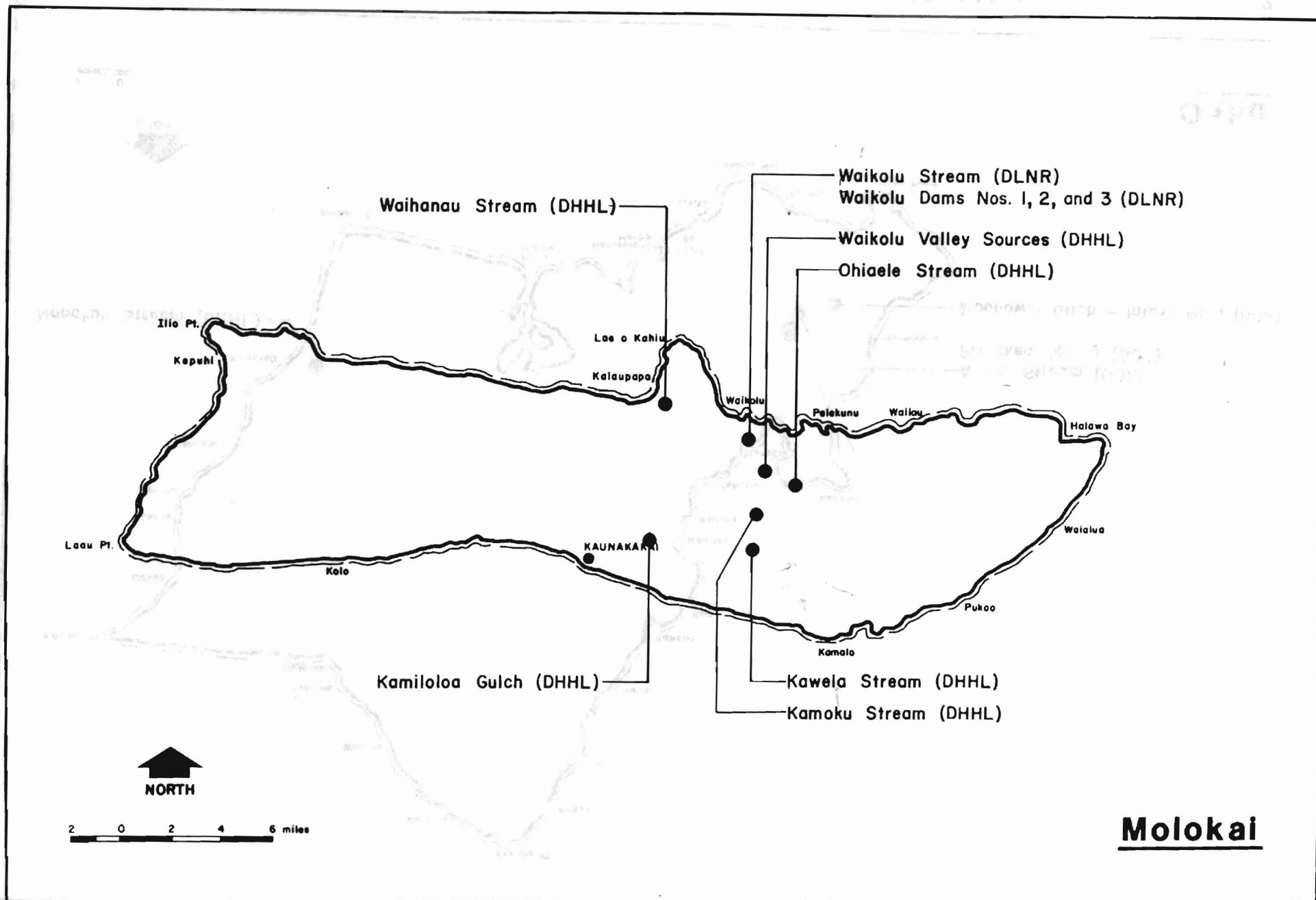
EXISTING REGISTERED STATE DIVERSIONS - ISLAND OF KAUAI

FIG. 2.1





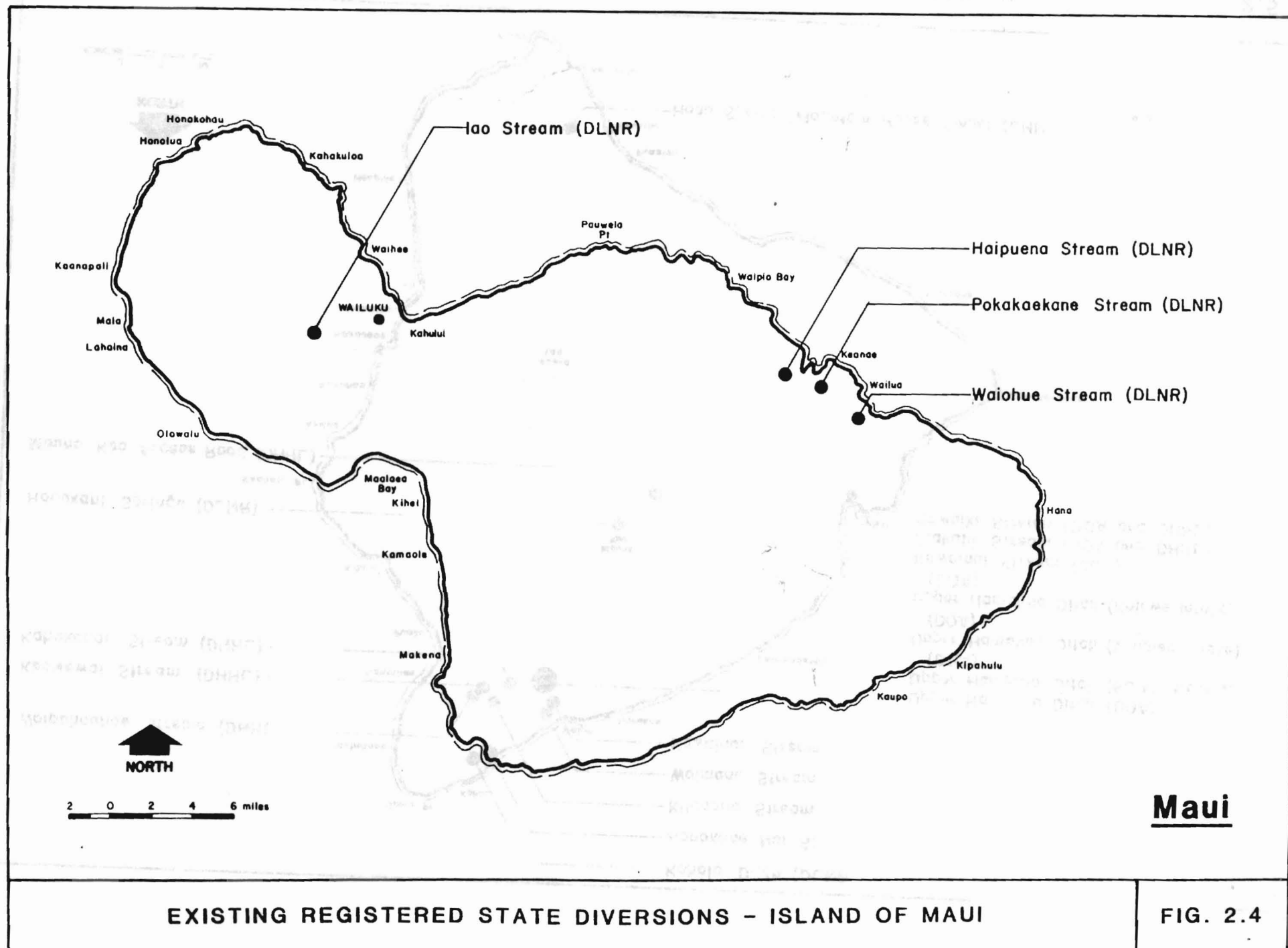
2-4



**Molokai**

EXISTING REGISTERED STATE DIVERSIONS - ISLAND OF MOLOKAI

FIG. 2.3





for agricultural operations. Other uses include potable water supply, generally for remote areas, e.g. parks and recreation areas. Since diversion works involve surface water sources, the collected water generally require treatment before it is considered safe for human consumption.

### 2.2.3 Wells

A "Well" is defined as "any excavation or opening in the ground, or an artificial enlargement of a natural opening drilled, tunneled, dug, or otherwise constructed for the location, exploration, development, injection, or recharge of ground water and by which ground water is drawn or is capable of being withdrawn or made to flow." The State currently owns and/or operates 41 wells. The locations of the registered State wells are shown in Figures 2.6 thru 2.10. A listing of the State owned/operated wells is included in Appendix B.

Water from the State wells are used for various applications. Principal uses include potable water supply and irrigation. Miscellaneous uses include cooling water, landscaping, aquaculture, and wetland maintenance.

## 2.3 DESCRIPTION OF STATE OPERATED WATER SYSTEMS

Based on information compiled in this study, the State currently owns and operates 19 known water systems. (See Figure 2.11) Of these, sixteen (16) are public water systems, used for potable water. The remaining three (3) systems primarily support agricultural-related operations, either irrigation or livestock water supply.

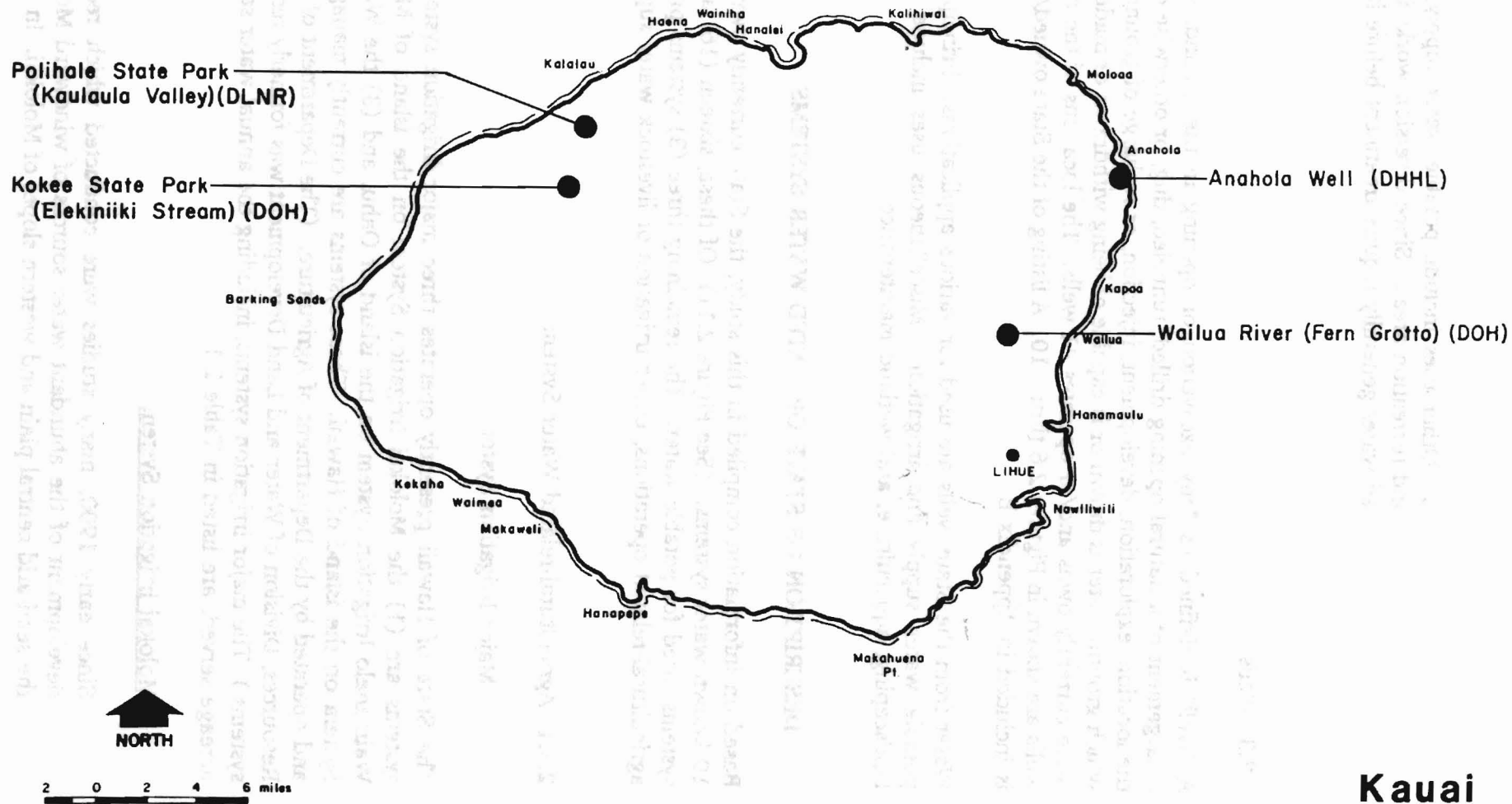
### 2.3.1 Agricultural-related Water Systems

#### 2.3.1.1 Major Irrigation Systems

The State of Hawaii presently operates three major irrigation systems. The three systems are (1) the Molokai Irrigation System on the island of Molokai, (2) the Waimanalo Irrigation System on the island of Oahu, and (3) the Waimea Irrigation System on the island of Hawaii. These systems are currently managed, maintained and operated by the Department of Agriculture. (The Department of Land & Natural Resources, Division of Water and Land Development was formerly responsible for the systems.) The major irrigation systems, including the annual water sales and average acreage served, are listed in Table 2.1.

#### Molokai Irrigation System

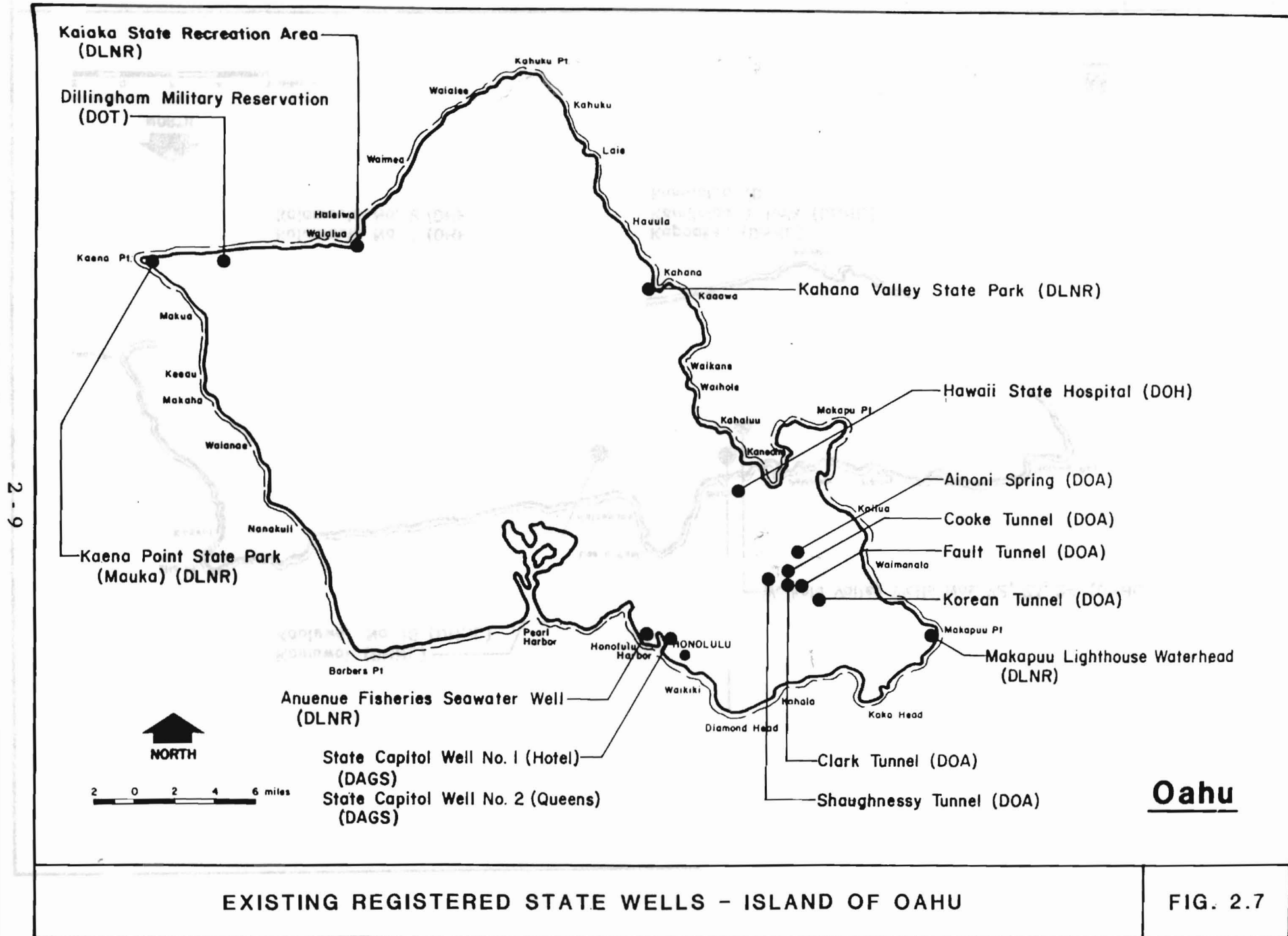
Since early 1900, many studies were conducted which recommended the development of the abundant water sources of windward Molokai for use in the semi-arid central plain and western slopes of Molokai. In 1955, a study of



EXISTING REGISTERED STATE WELLS - ISLAND OF KAUAI

FIG. 2.6

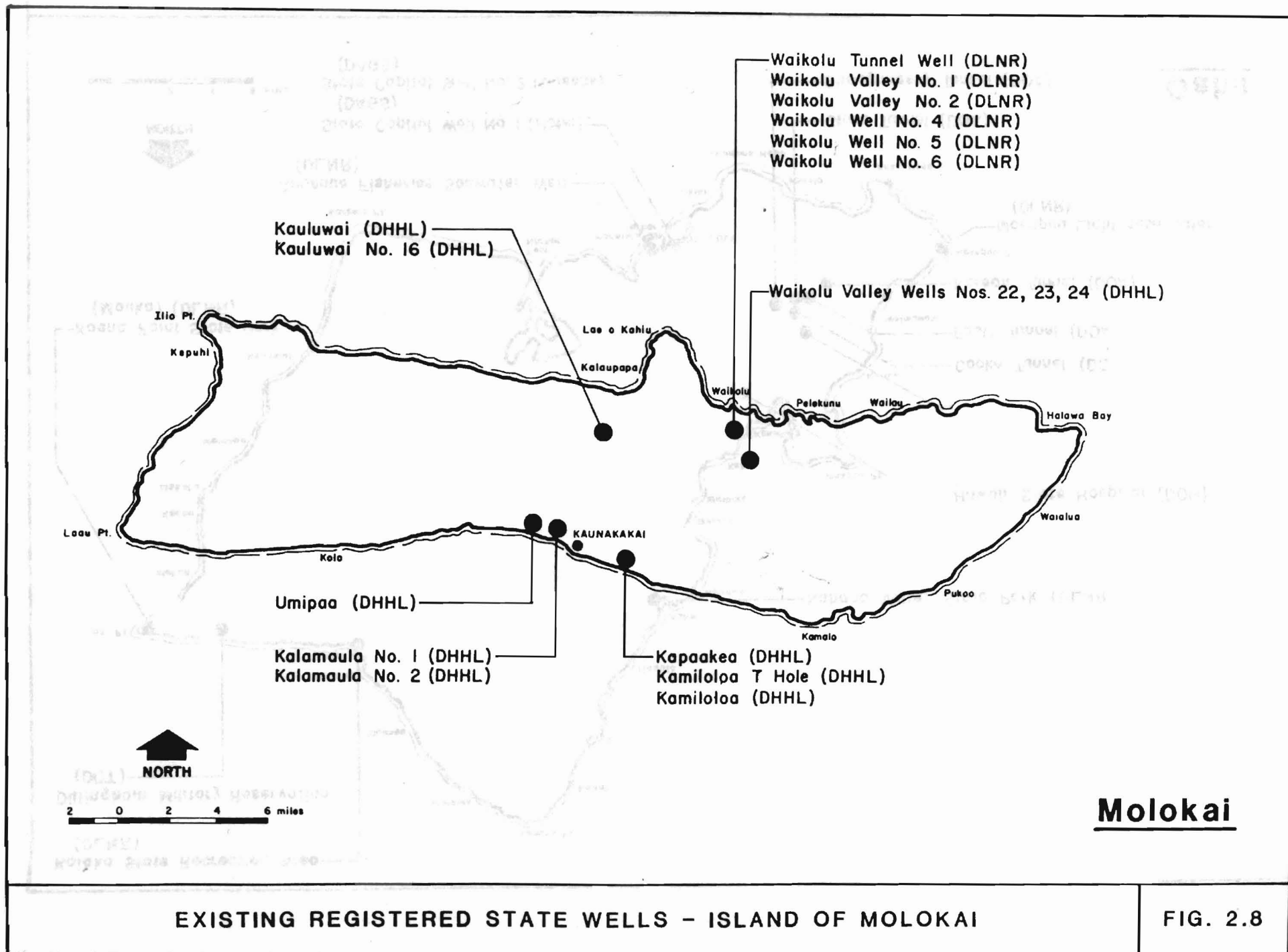


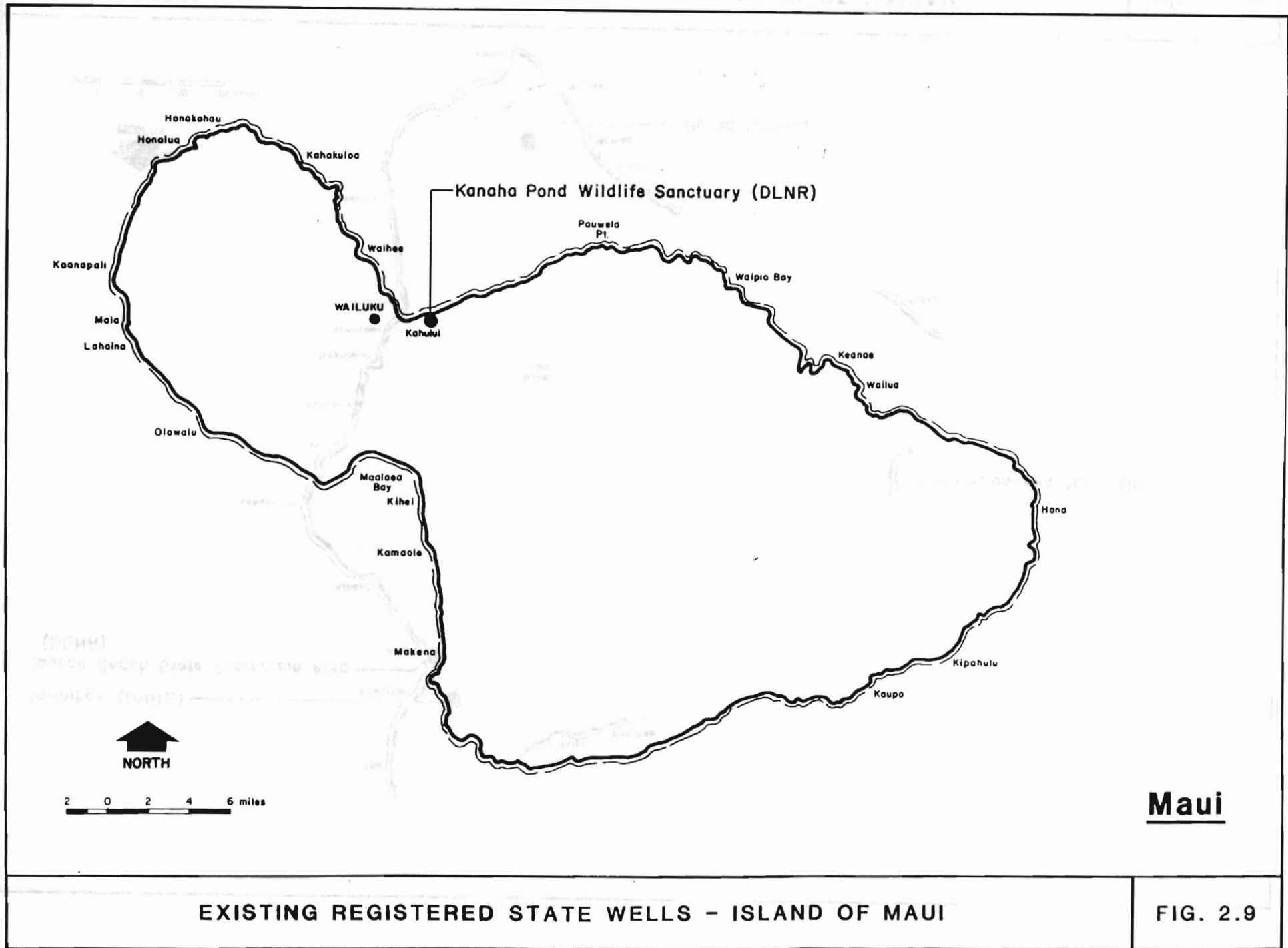


EXISTING REGISTERED STATE WELLS - ISLAND OF OAHU

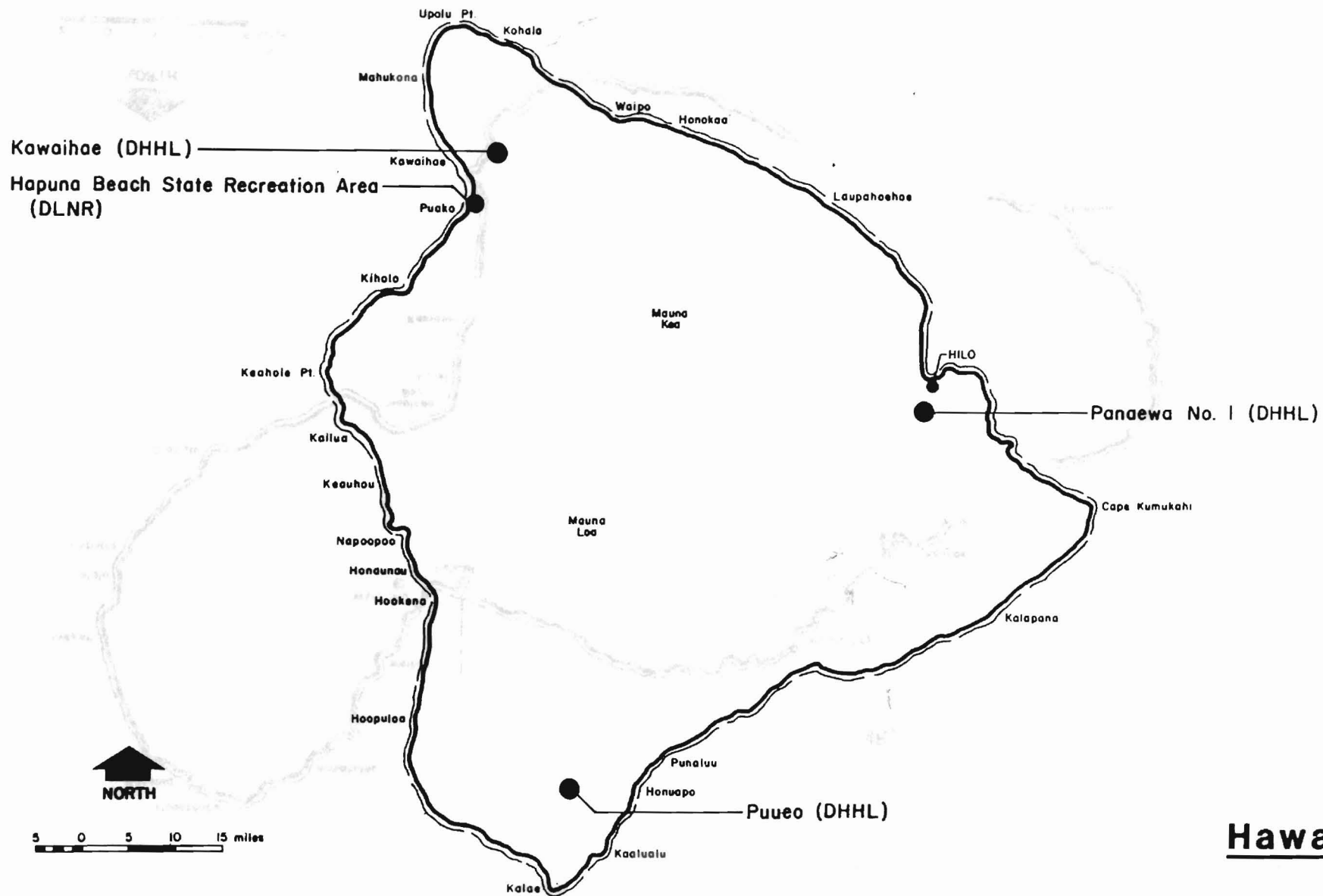
FIG. 2.7

2 - 10





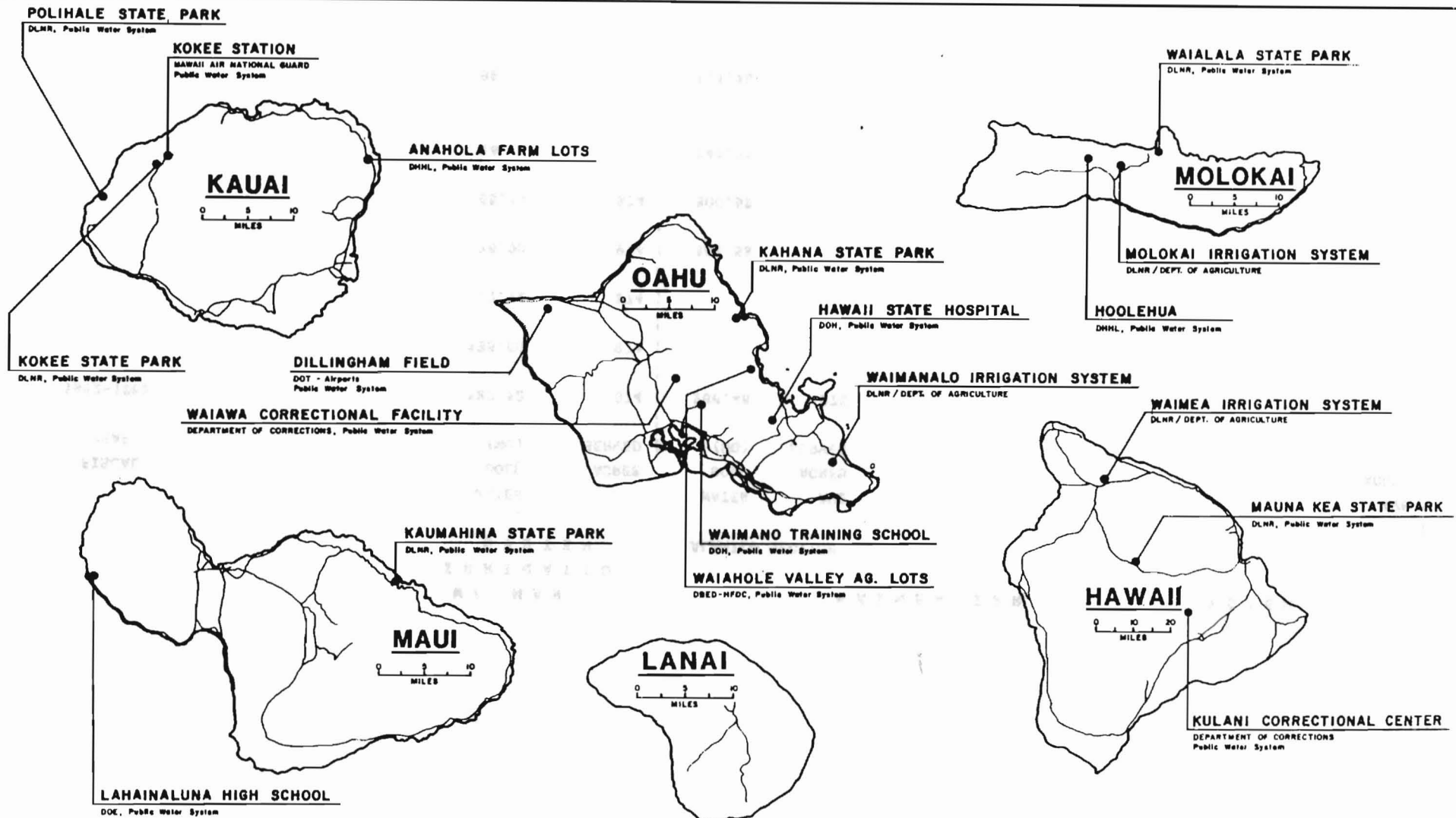
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**Hawaii**

EXISTING REGISTERED STATE WELLS - ISLAND OF HAWAII

FIG. 2.10



**FIG. 2.11**

## STATE OPERATED WATER SYSTEMS

TABLE 2.1 - MAJOR STATE OPERATED IRRIGATION SYSTEMS

FISCAL YEAR	MOLOKAI IRRIGATION SYSTEM		WAIMANALO IRRIGATION SYSTEM		WAIHEA IRRIGATION SYSTEM							
					LALAMILO SECTION		PUUKAPU SECTION		DHHL SECTION		TOTAL	
	WATER SOLD (MG)	AVE ACRES SERVED	WATER SOLD (MG)	AVE ACRES SERVED	WATER SOLD (MG)	AVE ACRES SERVED	WATER SOLD (MG)	AVE ACRES SERVED	WATER SOLD (MG)	AVE ACRES SERVED	WATER SOLD (MG)	AVE ACRES SERVED
1982-1983	806.88	3720	122.62	974	266.46	278	36.09	92	24.41	93	326.96	463
1983-1984	1011.54	3854	135.58	974	358.94	278	55.83	94	49.30	98	464.07	470
1984-1985	1185.27	3999	72.12	974	297.73	278	69.79	99	56.85	99	424.36	476
1985-1986	1029.00	4084	76.90	974	301.53	277	49.80	99	40.30	101	391.63	477
1986-1987	1089.63	4372	65.14	974	300.59	278	40.55	108	26.99	101	368.13	487
1987-1988	1241.06	4563	64.17	971	341.71	278	37.91	106	27.28	103	406.90	487
AVERAGE	1060.56	4099	89.42	973	311.16	278	48.33	100	37.52	99	397.01	477
AVE (MGD)	2.91		0.24		0.85		0.13		0.10		1.09	



the Molokai Irrigation Project was made by the U.S. Bureau of Reclamation, and the resulting report, published in 1957, concluded that the project was engineeringly and economically feasible, with direct annual benefits exceeding the annual costs by a ratio of 2.6 to 1.0. With the attainment of statehood in August 1959, the provisions of the Federal Small Reclamation Projects Act of 1956 were extended to Hawaii through the Hawaii Omnibus Bill. As the Molokai Irrigation Project then qualified for a loan under this Act, the Department of Land and Natural Resources updated the Bureau of Reclamation's report and subsequently applied for a Federal loan. The project at that time was estimated to cost \$9.9 million.

At the time of the loan application, the Molokai Tunnel was being constructed with State funds. The application for the Federal loan was approved and the implementation of the balance of the project plan, including the construction of a supply conduit, transmission and distribution lines, and a storage reservoir, was completed with State appropriations and a Federal loan of \$4.5 million.

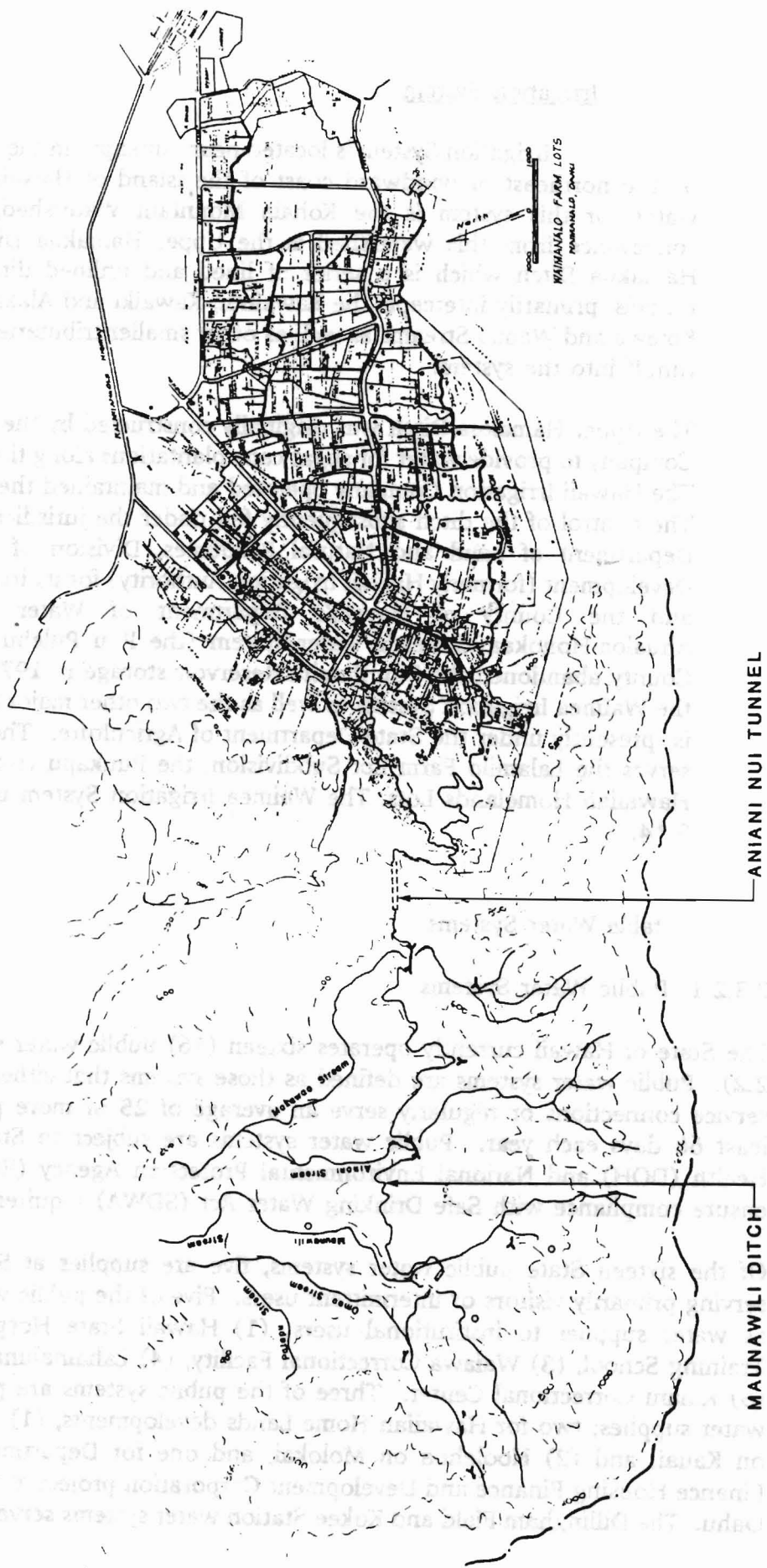
The primary facilities of the Molokai Irrigation System were completed in 1967, at which time the system became operational. Subsequently, additional facilities were constructed to increase the supply of water and extend the service area. The Molokai Irrigation System is shown in Figure 2.12.

#### Waimanalo Irrigation System

The Waimanalo Irrigation System is located at Waimanalo, District of Koolau, on the northeasterly or windward coast of the island of Oahu. The system was developed for sugar cane irrigation by the Waimanalo Sugar Company, beginning in 1878 and ending in 1947. The system has been operated by the State (previously Territorial) government since November 1953. The Waimanalo Irrigation system serves approximately 1000 acres of land, much of which are referred to as the Waimanalo Farm Lots and the Waimanalo Agricultural Park. Also served by the system is the University of Hawaii Experimental Farm.

The primary source of water to the Waimanalo Irrigation System is the Maunawili Ditch which collects water from high-level tunnels, springs and streams in Maunawili Valley. Water is transported to Waimanalo through the Aniani Nui tunnel. The distribution and collection system including ditches, pipelines and reservoirs have recently been upgraded to improve the reliability of the system. The average water production of the system is 0.18 mgd. The Waimanalo Irrigation System is shown in Figure 2.13.





### Waimea Irrigation System

The Waimea Irrigation System is located near Puukapu, in the Hamakua District on the northeast or windward coast of the island of Hawaii. The source of water for this system is the Kohala Mountain Watershed, and the major conveyance from this watershed is the Upper Hamakua Ditch. The Upper Hamakua Ditch which is a series of lined and unlined ditches, flumes and tunnels, primarily intercepts the Kawainui, Kawaiki and Alakahi Streams. The Koiawe and Waima Streams as well as other smaller tributaries also contribute runoff into the system.

The Upper Hamakua Ditch was originally constructed by the Hawaii Irrigation Company to provide water for sugar cane plantations along the Hamakua Coast. The Hawaii Irrigation Company operated and maintained the ditch until 1948. The control of the ditch subsequently fell under the jurisdiction of the State's Department of Land and Natural Resources, Division of Water and Land Development (formerly Hawaii Irrigation Authority) for its irrigation operations and the County of Hawaii's Department of Water Supply for the Ahualoa-Honokaa domestic water system (the Puu Pulehu Reservoir). The County abandoned the Puu Pulehu Reservoir storage in 1977. The control of the Waimea Irrigation System as well as the two other major irrigation systems, is presently under the State Department of Agriculture. The system currently serves the Lalamilo Farm Lot Subdivision, the Puukapu Homesteads, and the Hawaiian Homelands Lots. The Waimea Irrigation System is shown in Figure 2.14.

### 2.3.2 Potable Water Systems

#### 2.3.2.1 Public Water Systems

The State of Hawaii currently operates sixteen (16) public water systems (see Table 2.2). Public water systems are defined as those systems that either have 15 or more service connections or regularly serve an average of 25 or more people daily for at least 60 days each year. Public water systems are subject to State Department of Health (DOH) and National Environmental Protection Agency (EPA) regulations to ensure compliance with Safe Drinking Water Act (SDWA) requirements.

Of the sixteen State public water systems, five are supplies at State park facilities serving primarily visitors or intermittent users. Five of the public water systems serve as water supplies to institutional users; (1) Hawaii State Hospital (2) Waimano Training School, (3) Waiawa Correctional Facility, (4) Lahainaluna High School, and (5) Kulani Correctional Center. Three of the public systems are primary community water supplies; two for Hawaiian Home Lands developments, (1) Anahola Farm Lots on Kauai, and (2) Hoolehua on Molokai, and one for Department of Budget and Finance Housing Finance and Development Corporation project at Waiahole Valley on Oahu. The Dillingham Field and Kokee Station water systems serves intermittent users

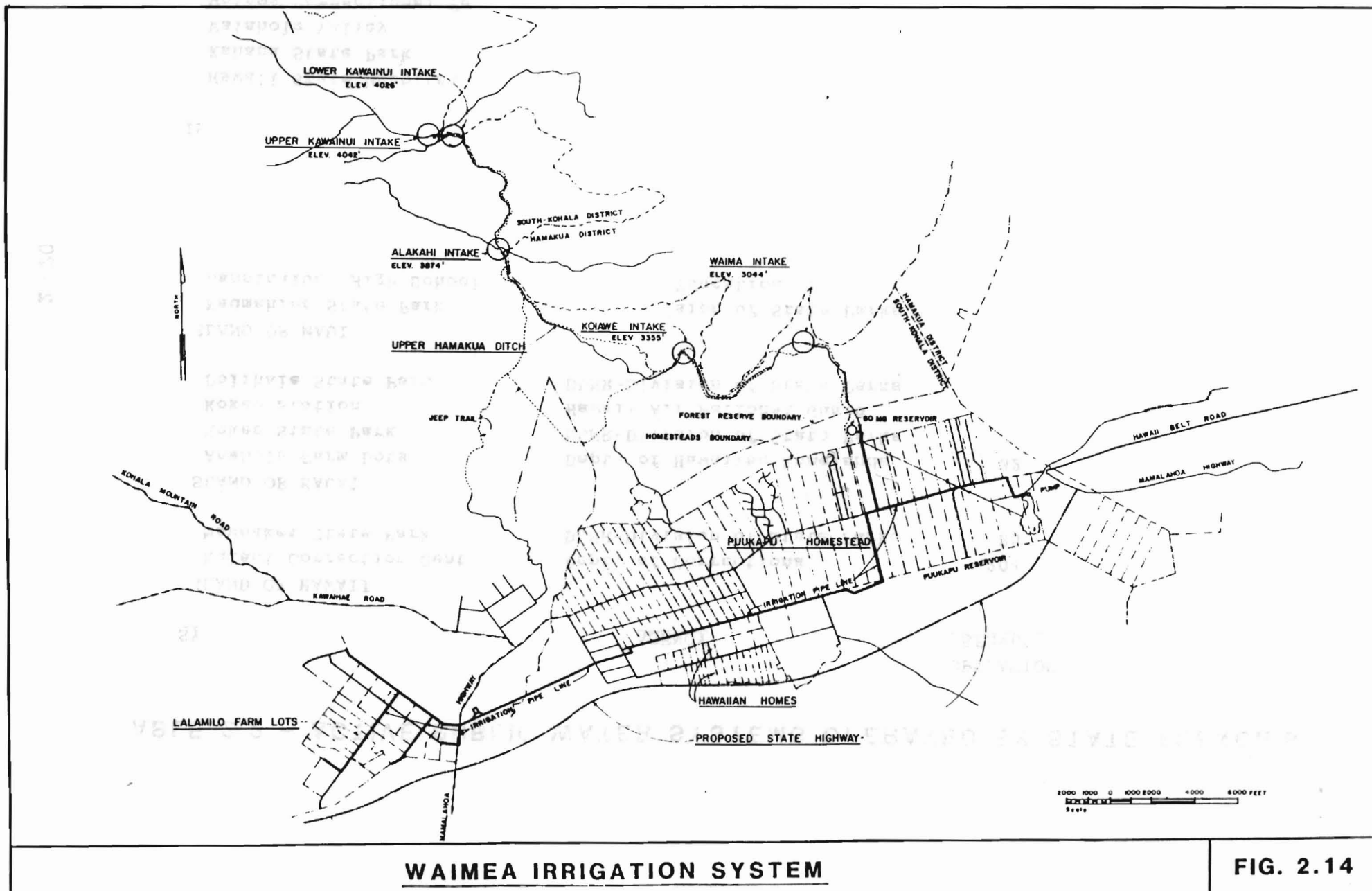


FIG. 2.14

TABLE 2.2 - ACTIVE PUBLIC WATER SYSTEMS OPERATED BY STATE AGENCIES

<u>SYSTEM NAME</u>	<u>AGENCY</u>	<u>POPULATION SERVED</u>	<u>SOURCE TYPE</u>
ISLAND OF HAWAII			
Kulani Correction Center	Dept. of Corrections	204	Surface
Maunakea State Park	DLNR-Division of State Parks	25	Ground
ISLAND OF KAUAI			
Anahola Farm Lots	Dept. of Hawaiian Homelands	32	Ground
Kokee State Park	DLNR-Division of State Parks	1000	Surface
Kokee Station	Hawaii Air National Guard	200	Ground
Polihale State Park	DLNR-Division of State Parks	1000	Ground
ISLAND OF MAUI			
Kaunahine State Park	DLNR-Division of State Parks	300	Surface
Lahainaluna High School	Dept. of Education	798	Surface
ISLAND OF MOLOKAI			
Hoolehua	Dept. of Hawaiian Homelands	1700	Ground
Waialala	DLNR-Division of State Parks	500	Ground
ISLAND OF OAHU			
Dillingham	Dept. of Transportation	1800	Ground
Hawaii State Hospital	Dept. of Health	2000	Ground
Kahana State Park	DLNR-Division of State Parks	128	Ground
Waiahole Valley	Dept. of Budget & Finance (HFDC)	300	Ground
Waiawa Correctional Facility	Dept. of Corrections	200	Surface
Waimano Training School	Dept. of Health	235	Ground



at the respective facilities.

### 2.3.3 Other State Water Systems

The State of Hawaii has jurisdiction over other smaller water systems. However, documentation of these small systems, which include such small uses as drinking fountains at State park facilities or stream diversions for irrigation of small farm lots, are very limited. The Water Use Registration Program provides the most current data regarding any known State operated water sources and also provides some indication of their respective water systems.

## Other Water Systems

The State of Iowa has jurisdiction over other water systems. However, a number of these small systems which include such items as irrigation systems, etc., are not under the jurisdiction of the State. The Water Pollution Control Administration, however, provides the most complete information on these systems and the results of its study.

in the water system.

## **SECTION 3 - PROPOSED WATER-RELATED STATE PROJECTS**

### **3.1 GENERAL**

The State of Hawaii, in its effort to satisfy the many needs of the public, has numerous projects scheduled for implementation by the various state agencies. In order to anticipate the future water requirements of proposed state projects, an inventory of state programmed projects requiring water was compiled. The various state agencies were contacted for their proposed project listings and schedules if available. The collected data were reviewed and sorted to obtain a listing of projects that may have significant water requirements. In general, projects involving new housing developments, agriculture/irrigation projects and major facilities or major expansions were considered as having significant impact on water resources.

### **3.2 INVENTORY OF PROPOSED WATER-RELATED PROJECTS**

#### **3.2.1 Methodology**

The project data obtained from the various State agencies were entered onto a "STATE PROJECT DATA SHEET". A sample form is shown in Figure 3.1. The form was used to standardized the format of information collected and also to quickly determine any missing elements of required project information. The information was then input into a computerized database to enable systematic sorting and extraction of data. Data sheets, with the collected agency information, were then printed and distributed to the various agencies for review, comment and ammendment. Upon receipt of comments from the various agencies, the database was revised and updated.

#### **3.2.2 Evaluation of Collected Data**

The data obtained from the various State agencies varied in content, detail and format with respect to water related information. It is understood that this is the "First Pass" planning effort and that as agency awareness of the importance of water planning increases, the data will be more consistent and complete in future updates.

An attempt to obtain proposed project schedule information was made to formulate a time related water demand projection. However, this information was often not available, especially when a 20 year planning period was to be considered. Therefore, for the purposes of this study, an "ultimate" water demand for the proposed projects was used for water demand projections. In general, most agencies do not have specific projects programmed for more than a 10 year planning period and thus it can be estimated that the "ultimate" demands presented are projected by the year 2000.

Estimated water requirements for the various proposed were generally not available

**STATE WATER PROJECTS PLAN  
STATE PROJECT DATA SHEET  
=====**

**PROJECT NAME:** \_\_\_\_\_

**DEPARTMENT:** \_\_\_\_\_

**COUNTY:** \_\_\_\_\_

**ISLAND:** \_\_\_\_\_

**HYDROLOGIC AREA:** \_\_\_\_\_

**SOURCE TYPE:** ( ) GROUNDWATER ( ) SURFACE WATER ( ) BRACKISH

**PRIMARY USE:** ( ) POTABLE ( ) IRRIGATION/AGR ( ) \_\_\_\_\_

**WATER SUPPLIER:** \_\_\_\_\_

**PROJECT DATA  
-----**

**PROJECT AREA (ACRES) :** \_\_\_\_\_  
**DEMAND PER ACRE (GPD):** \_\_\_\_\_

**NUMBER OF UNITS :** \_\_\_\_\_  
**DEMAND PER UNIT (GPD):** \_\_\_\_\_

**AGENCY ESTIMATE**  
**EXISTING DEMAND :** \_\_\_\_\_  
**EST. ULTIMATE DEMAND :** \_\_\_\_\_

**PROJECTIONS  
-----**

<b>PROJECTED PERCENT OF ULTIMATE DEMAND</b>					
<b>YEAR</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
_____	_____	_____	_____	_____	_____

<b>PROJECTED DEMANDS (MGD)</b>					
<b>YEAR</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
_____	0.0000	0.0000	0.0000	0.0000	0.0000

**FIG. 3.1 - SAMPLE DATA ENTRY FORM**

from the agencies unless specific engineering or planning studies were made for the specific projects. For those projects which did not have agency developed water requirements, an estimated value was determined using standard planning methods. The methods used are described later in this section.

### **3.3 PROPOSED WATER-RELATED PROJECTS BY STATE AGENCIES**

The project data collected and compiled in this study are summarized in tabular form in Appendix D. Specific project data sheets were generated from the computerized database but are not included in this report. General descriptions of the projects proposed by the various agencies follows.

#### **3.3.1 Department of Agriculture**

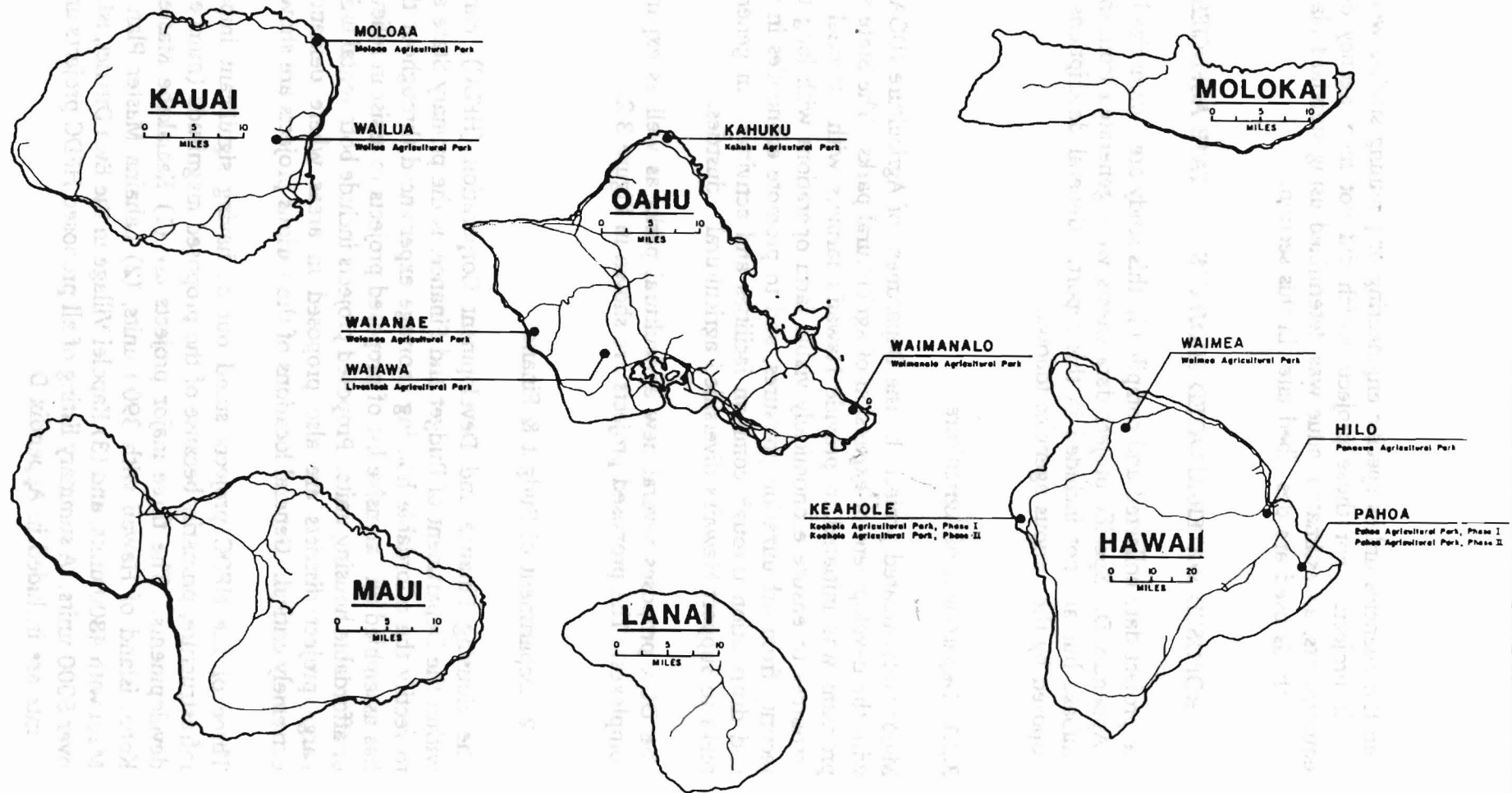
Major water-related projects by the Department of Agriculture (DOA) are associated with the development or expansion of agricultural parks. The State agricultural park program was initiated to provide Hawaii's farmers with essential land and water resources to ensure economically viable farm operations with long term tenure and security from urbanization pressures, and to promote economies in farm production and distribution through common facilities and activities. In general, the program seeks to support Hawaii's diversified agricultural industries.

The DOA proposes several new agricultural parks as well as expansion of existing complexes. The proposed projects are shown in Figure 3.2.

#### **3.3.2 Department of Budget & Finance**

The Housing Finance and Development Corporation (HFDC), currently operating within the Department of Budget and Finance, is the primary State agency delegated to rectify the affordable housing shortage experienced throughout the State. HFDC has assembled an extensive list of proposed projects to assist in relieving the shortage of affordable housing units. Proposed projects include both rental units and sale units. Large project districts are also proposed in areas where demand for housing is extremely critical. General locations of the various projects are shown in Figure 3.3.

Three of the HFDC projects stand out as having significant impact on the local infrastructure, primarily because of the proposed magnitude (number of units) of the developments. The three major projects are (1) Kealakehe Master Plan, in South Kona, island of Hawaii with 3900 units, (2) Lahaina Master Plan on the island of Maui with 4800 units, and (3) Kapolei Village in the Ewa District, island of Oahu with over 5000 units. A summary listing of all proposed HFDC projects and respective unit counts are included in Appendix D.



**FIG. 3.2**

**PROPOSED PROJECTS FOR THE DEPARTMENT OF AGRICULTURE**



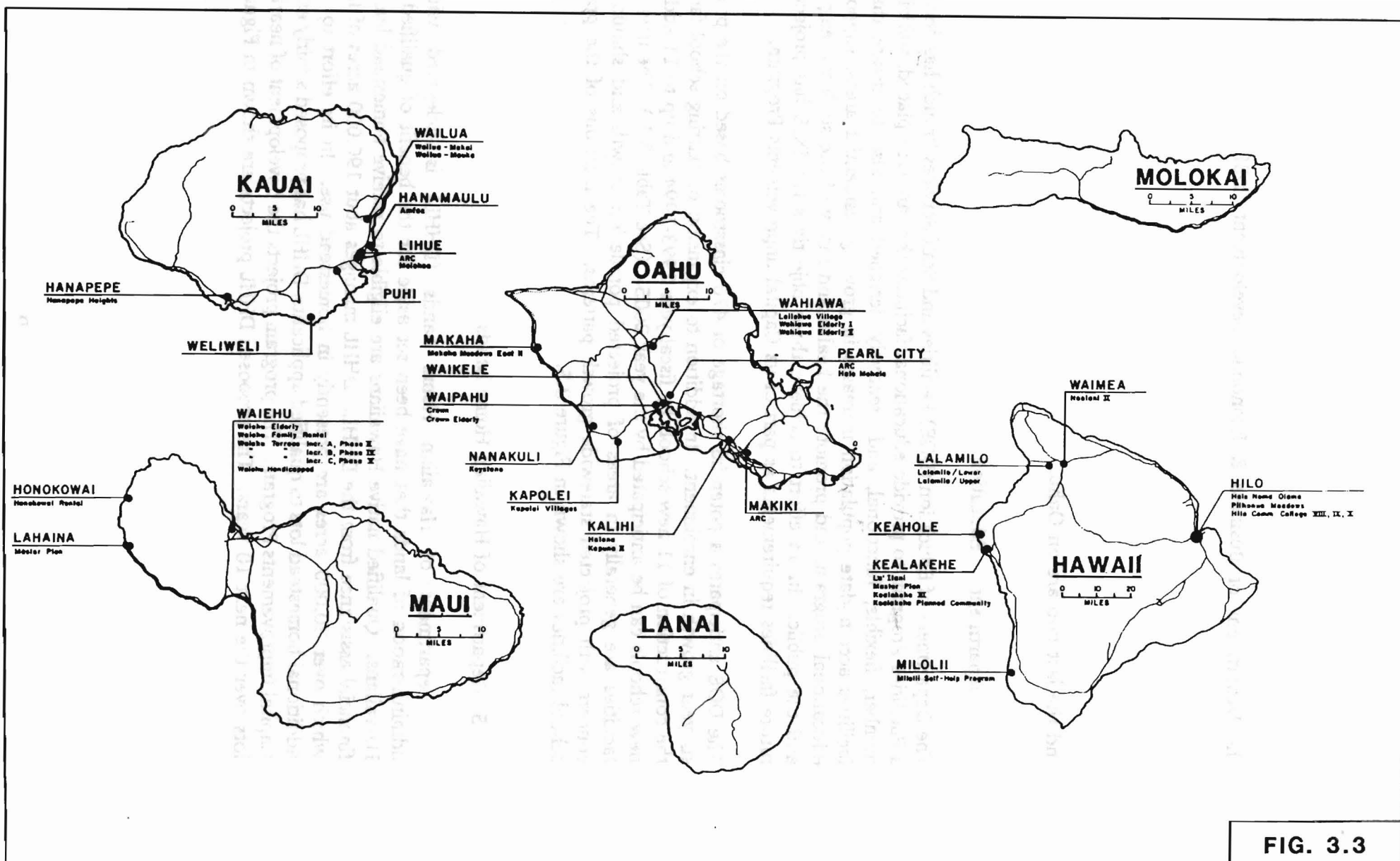


FIG. 3.3

# PROPOSED PROJECTS FOR THE DEPARTMENT OF BUDGET AND FINANCE

HOUSING FINANCE AND DEVELOPMENT CORPORATION

### 3.3.3 Department of Business & Economic Development

The Department of Business & Economic Development (DBED) is involved with exploring and pursuing opportunities for the State of Hawaii to broaden and diversify its economic base. Among its many endeavors, five projects were identified as having significant water requirements. The five projects are (1) the Natural Energy Laboratory of Hawaii, (2) the Space Launch Facility, (3) the Hawaii Ocean Science and Technology Park, (4) the Aloha Tower Development, and (5) the Kakaako Redevelopment Project. The first three projects are situated on the island of Hawaii and the last two are on Oahu. (See Figure 3.4.)

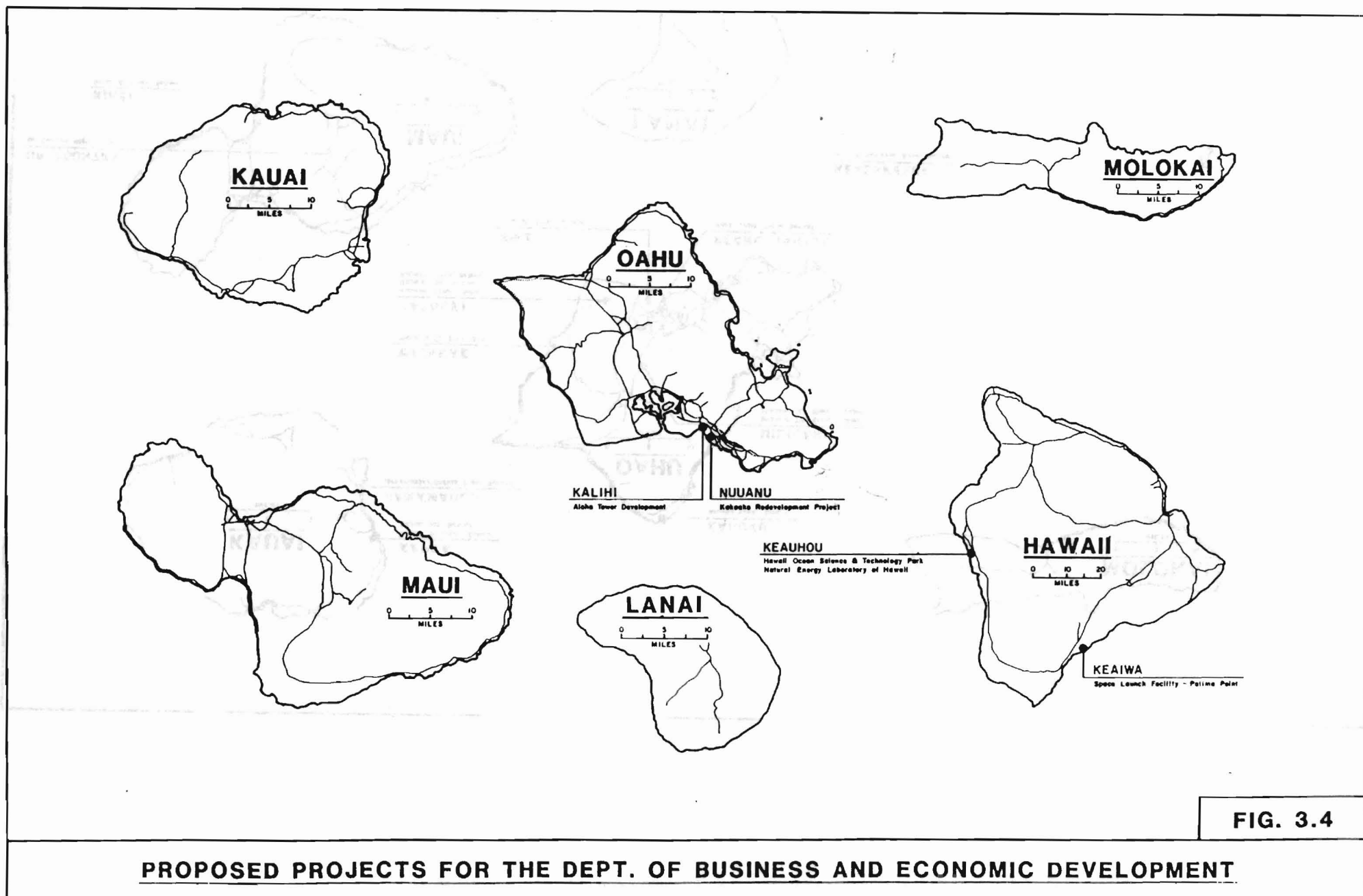
### 3.3.4 Department of Education

The Department of Education (DOE) Facilities and Staff Services Branch has developed a Facilities Program to provide educational facilities that are well placed, sufficient in number, flexible, functional, and creatively designed and also to insure that the facilities accommodate population increases in growing residential areas, support the educational program, and promote the health and safety of the students, employees and the public. In an effort to achieve these objectives the DOE has projected its future facilities requirements as part of its Capital Improvements Program.

The DOE anticipates a potential shortage of 476 classrooms based on the projected six-year growth in enrollment. In addition to expansion of existing school facilities, the construction of 11 new schools by fiscal year 1993-1994 and up to 11 additional new schools can be anticipated by the year 2005. (See Table 3.1.) The new school facilities are generally in areas of projected population growth and should be in concert with projected statewide growth patterns. The locations of the proposed school facilities are shown in Figure 3.5.

### 3.3.5 Department of Hawaiian Home Lands

The Department of Hawaiian Home Lands (DHHL) is delegated with the administration of lands that have been set aside for the benefit of qualified native Hawaiians. Qualified native Hawaiians are eligible to receive homestead leases and financial assistance from the DHHL. DHHL manages about 190,000 acres of land, of which over 30,000 acres are presently in homestead use. In its effort to provide additional homestead lots to qualified applicants, DHHL has proposed a fairly extensive Capital Improvements Program. The program projects the development of nearly 3600 lots over the next 10 years. The proposed DHHL projects are shown in Figure 3.6.



3 - 8

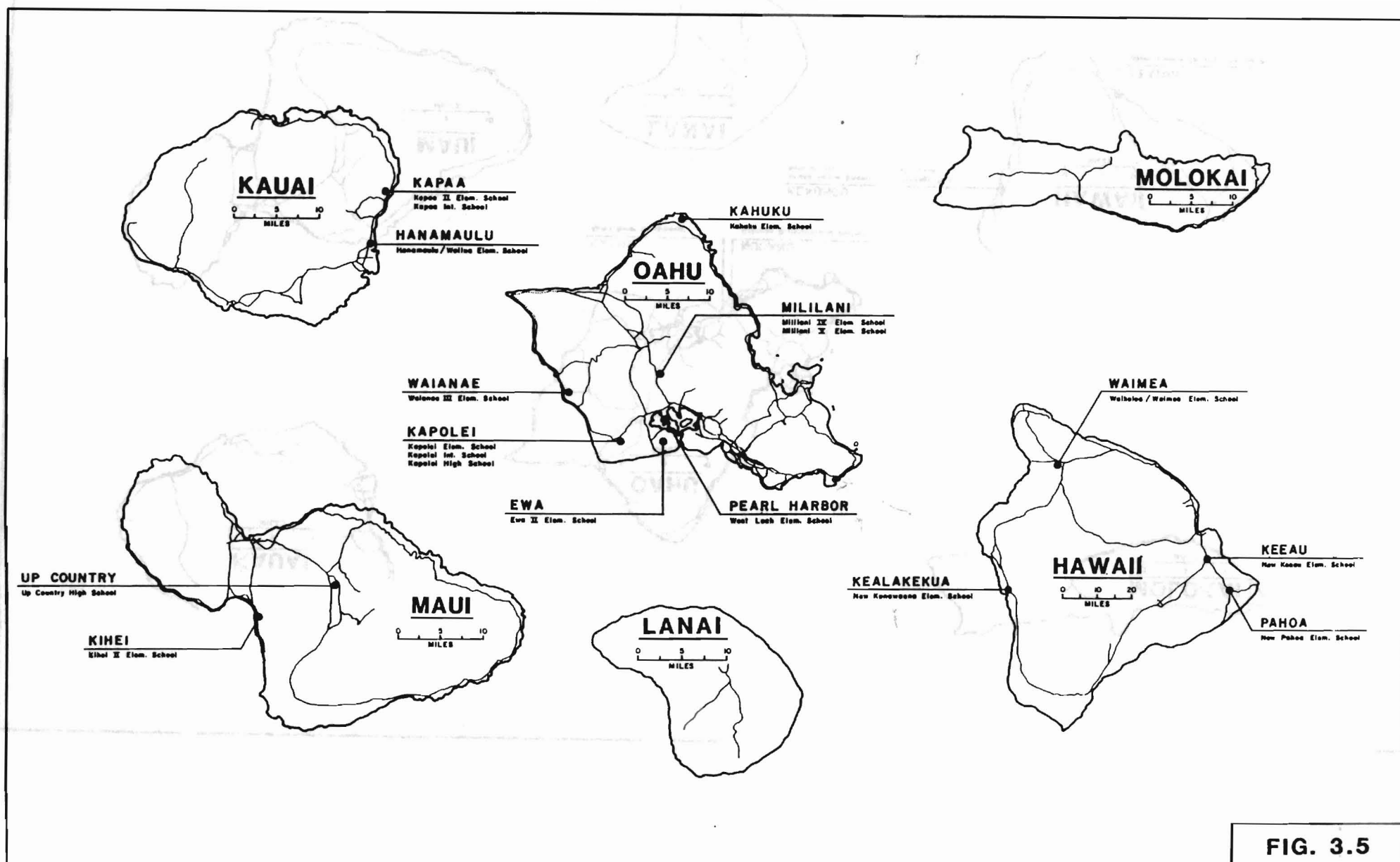


FIG. 3.5

**PROPOSED PROJECTS FOR THE DEPARTMENT OF EDUCATION**

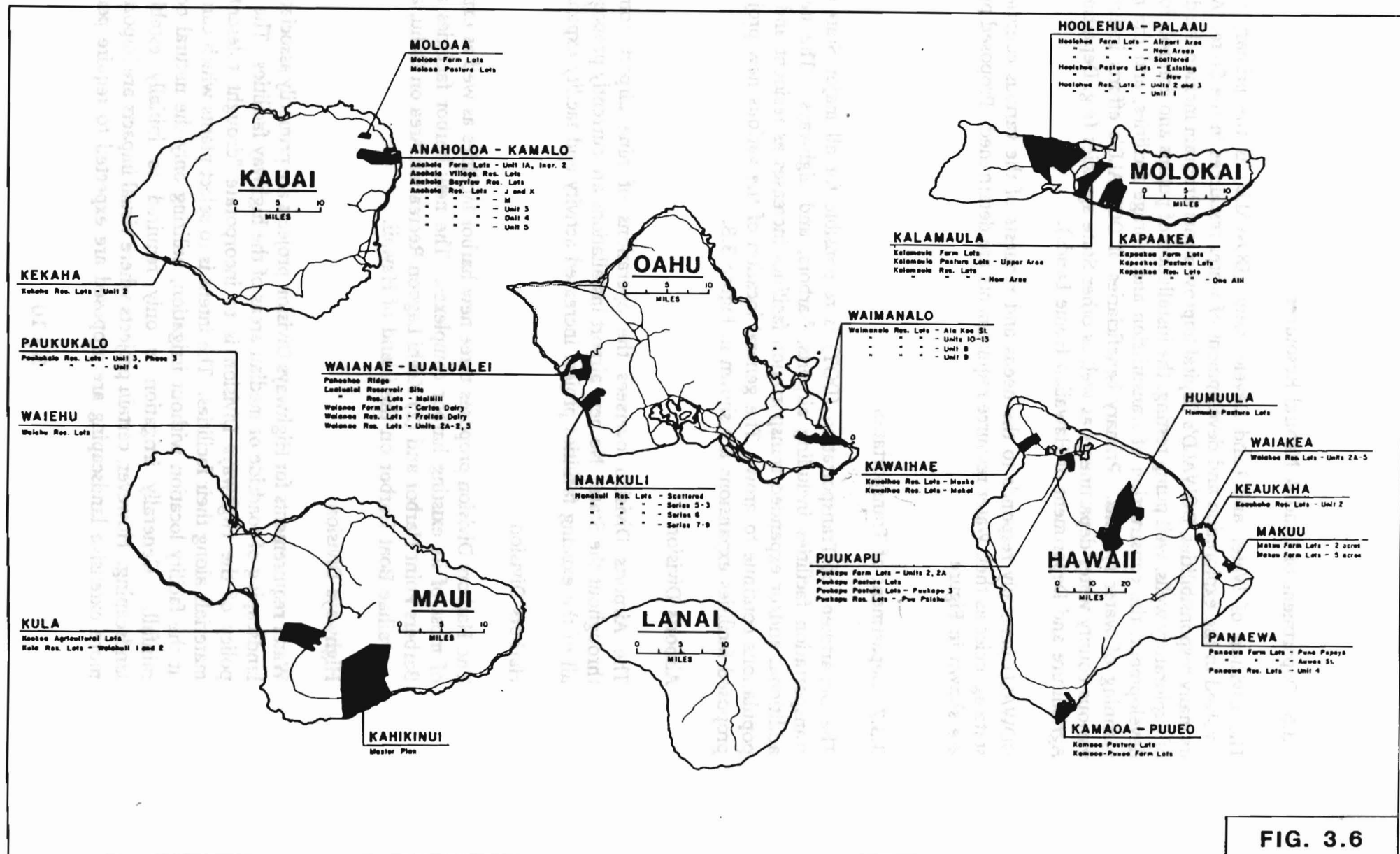


FIG. 3.6

PROPOSED PROJECTS FOR THE DEPARTMENT OF HAWAIIAN HOME LANDS

### 3.3.6 Department of Land & Natural Resources

The Division of Water and Land Development (DOWALD) is the primary agency involved in the exploration and development of water resources in the State. Among its many responsibilities, DOWALD's Capital Improvements Program include the drilling of exploratory wells, well pump testing, the installation of pumps and controls for well development, the construction of transmission and storage facilities, and the master planning of water systems. Primary beneficiaries of DOWALD's efforts include the various county water departments as well as other State agencies (e.g. Department of Agriculture and Department of Hawaiian Home Lands).

DOWALD generally responds to the needs and requests of the various counties and state agencies as their water resource requirements are determined. Proposed projects are shown in Figure 3.7.

### 3.3.7 Department of Transportation

The Department of Transportation (DOT) is responsible for all major State-owned transportation facilities including airports, harbors, and highways. The need for additional and/or expanded transportation facilities increases as resident and visitor populations continue to grow. The general location of the various new projects or proposed facilities expansions are shown in Figure 3.8.

#### Airports Division

The Airports Division oversees the operations of nine airport complexes throughout the State. No new airport installations are currently proposed, but all of the existing facilities project increased activity and facility expansions.

#### Harbors Division

The Harbors Division proposes three new harbor facilities as well as expansion of most of its existing harbor complexes. The new harbor facilities are (1) Barbers Point Harbor and (2) Keehi Lagoon Recreation Area on Oahu, and (3) Kawaihae Boat Harbor on the island of Hawaii.

#### Highways Division

Water requirements for Highways Division projects are primarily associated with landscaping of roadside or median areas of the highway facilities. The general policy of the Highways Division is to incorporate "drought tolerant" plant materials along their facilities. The intent is to select plants which can survive at the facility location without irrigation, utilizing only the natural occurring rainfall. Generally irrigation is only required to initially establish the landscaping. However, certain projects where visual impacts are important and more extensive landscaping are proposed are expected to require permanent



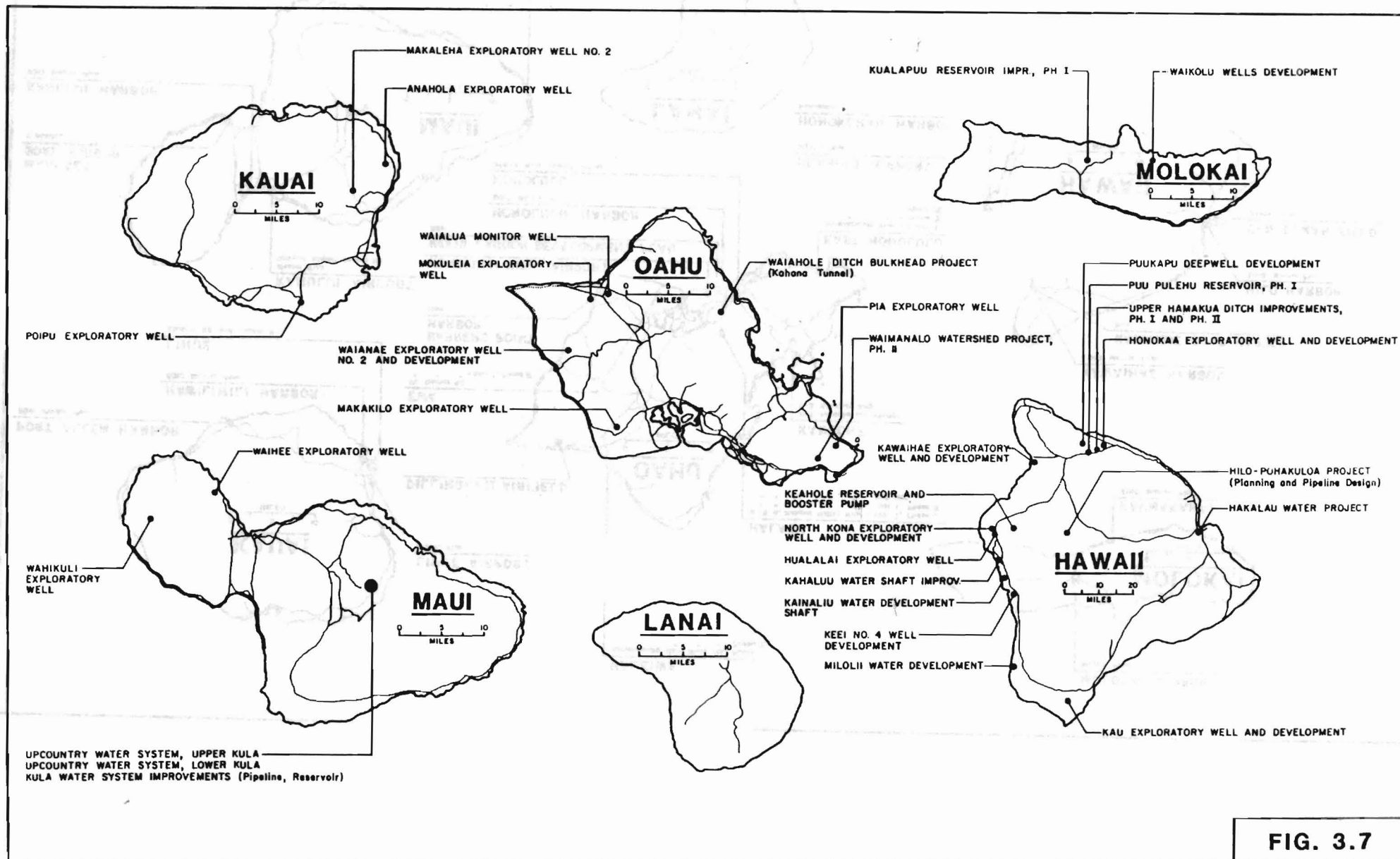


FIG. 3.7



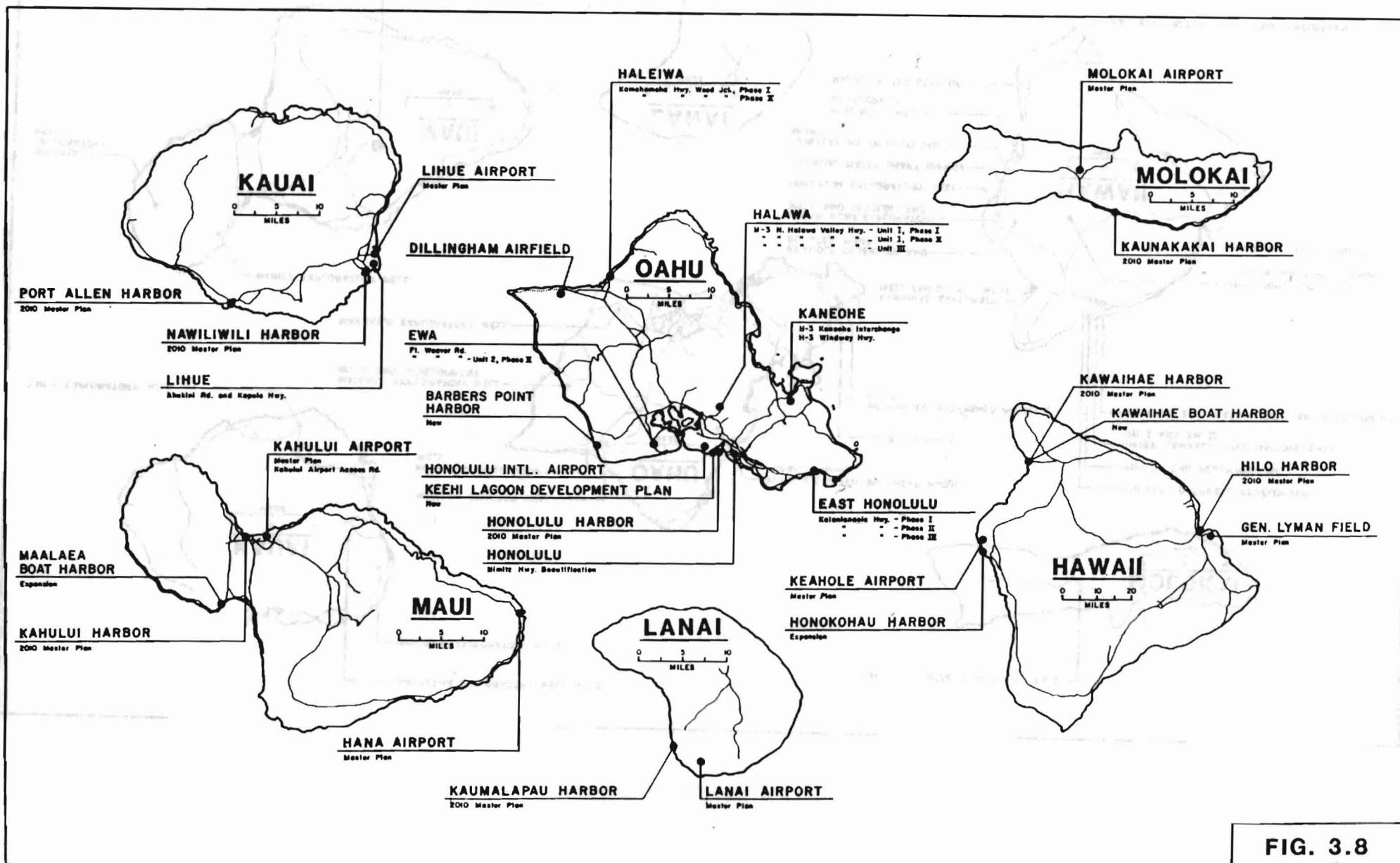


FIG. 3.8

irrigation systems.

### **3.4 SUMMARY OF PROJECTED WATER REQUIREMENTS**

#### **3.4.1 Estimating Project Demands**

As indicated earlier, water requirements for proposed projects were generally not defined, especially when projects were in the early stages of planning. Unless specific studies were performed to determine a project's water requirements, only rough estimates can be provided. In order to generate meaningful estimates, standard water demand guidelines were used. Domestic consumption guidelines (Table 3.1) developed by the various county water departments were applied to estimate the water demand for the individual projects. The information required to compute water demands include either unit count, population estimate, or project area.

The ultimate demand used for the water demand projections was selected for each project in the following manner. If an agency determined value was provided, that figure was used as the ultimate demand. If no agency value was provided, then the ultimate demand value was computed using the Standard guidelines specified for the project's location (utilizing the County which would have jurisdiction over the specific project).

The rationale used to support this procedure is that since most state projects will be serviced by the Counties' water systems, the computation of water demand should be consistent with their accepted planning methods. Water demand estimates derived in this study should be considered as rough estimates based on the best available information and should be adjusted as more detailed information is developed as the specific projects become more well defined.

#### **3.4.2 Compilation of Water Demand Estimates**

The ultimate demand values are summarized in Appendices E and F. The projects are grouped by Department in Appendix E and by Hydrographic areas in Appendix F.

## DOMESTIC CONSUMPTION GUIDELINE

ZONE	AVERAGE DAILY DEMAND*			
	<u>HAWAII</u>	<u>KAUAI</u>	<u>MAUI</u>	<u>OAHU</u>
<b>RESIDENTIAL:</b>				
Single Family or Duplex	400gals/unit	500gals/unit	600gals/unit or 3000gals/acre	500gals/unit or 2500gals/acre
Multi-Family Low Rise	400gals/unit	350gals/unit	560gals/unit or 5000gals/acre	400gals/unit or 4000gals/acre
Multi-Family High Rise	400gals/unit	350gals/unit	560gals/unit	300gals/unit
<b>COMMERCIAL:</b>	3000gals/acre	3000gals/acre	6000gals/acre	3000gals/acre
Commercial/Industry Mix	--	500gals/acre	140gals/1000 sq. ft.	100gals/1000 sq. ft.
Commercial/Residential Mix	--	3000gals/acre	140gals/1000 sq. ft.	120gals/1000 sq. ft.
<b>RESORT (To include hotel for Maui only):</b>	400gals/unit	350gals/unit	350gals/unit or 17000gals/acre	350gals/unit or 4000gals/acre
<b>LIGHT INDUSTRY:</b>	4000gals/acre	4000gals/acre	6000gals/acre	4000gals/acre
<b>SCHOOLS, PARKS:</b>	4000gals/acre or 60gals/student	2500gals/acre plus 20gals/student	1700gals/acre or 60gals/student	4000gals/acre or 60gals/student
<b>HOSPITAL</b>			1800gals/acre	
<b>AGRICULTURAL</b>			5000gals/acre	

\* Where two or more figures are listed for the same zoning, the daily demand resulting in higher consumption use shall govern the design unless specified otherwise.

SOURCE: "WATER SYSTEM STANDARDS", County of Kauai DOW, C&C of Honolulu BWS,  
County of Maui DWS, and County of Hawaii DWS, Volume I, 1985.

TABLE 3.1 - COUNTIES' GUIDELINES FOR WATER CONSUMPTION

## **SECTION 4 - PROPOSED STATE WATER PROJECTS DEVELOPMENT PLAN**

### **4.1 GENERAL**

The previous sections list the various state projects, existing and proposed, with their existing and projected water demands. The vast majority of these projects are, and will continue to be, serviced by County water systems. Therefore, development funding for water for these State projects will primarily consist of a proportional cost for new source development and distribution system expansions to County systems.

The Division of Water and Land Development (DOWALD) of the Department of Land and Natural Resources (DLNR) is the State agency that is charged with water source exploration and development. In most cases, DOWALD will dedicate tested sources, and sometimes transmission systems, to the County water agencies for inclusion into the County systems. Proposed DOWALD projects for the current biennium are shown in Section 3.

#### **4.1.1 Hydrologic Units**

As recommended by the State Water Code, the geographic boundaries used for the development of regional plans coincide with the hydrologic units established in the Water Resources Protection Plan. For illustrative purposes, Figures 4.1 through 4.6 show the general boundaries of the various hydrologic sectors and aquifer systems established for each of the six major island in the Water Resources Protection Plan.

### **4.2 ASSESSMENT OF REGIONAL WATER NEEDS**

#### **4.2.1 Regional Comparisons**

Appendix F lists all the state projects by hydrologic unit. Figure 4.7 compares the projected water demand totals for proposed State projects for each hydrologic sector, statewide. Sectors 201 (Lihue), 302 (Pearl Harbor), and 809 (Hualalai) show projected demand totals exceeding 6 MGD. Sectors 301 (Honolulu), and 306 (Windward), 602 (Lahaina), 804 (N.E. Mauna Loa) and 808 (Kilauea) show projected demands between 2.5 to 3.5 MGD. All other sectors are less than 1.5 MGD.

#### **4.2.2 County of Kauai**

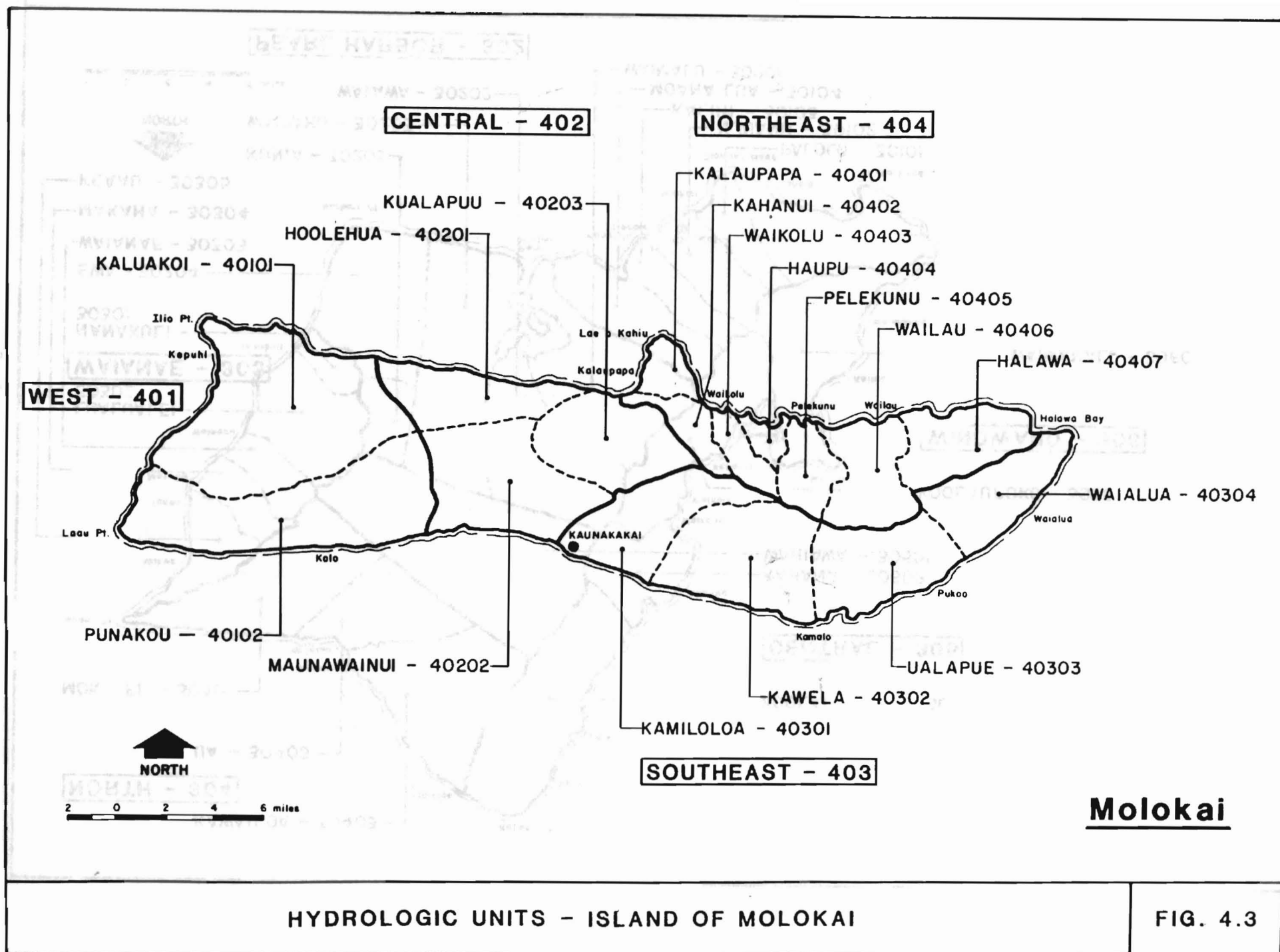
The Lihue sector exhibits the highest demand in the State. The proposed Moloaa Agricultural Park (3.8 MGD) is by far the largest project. Other major projects are the



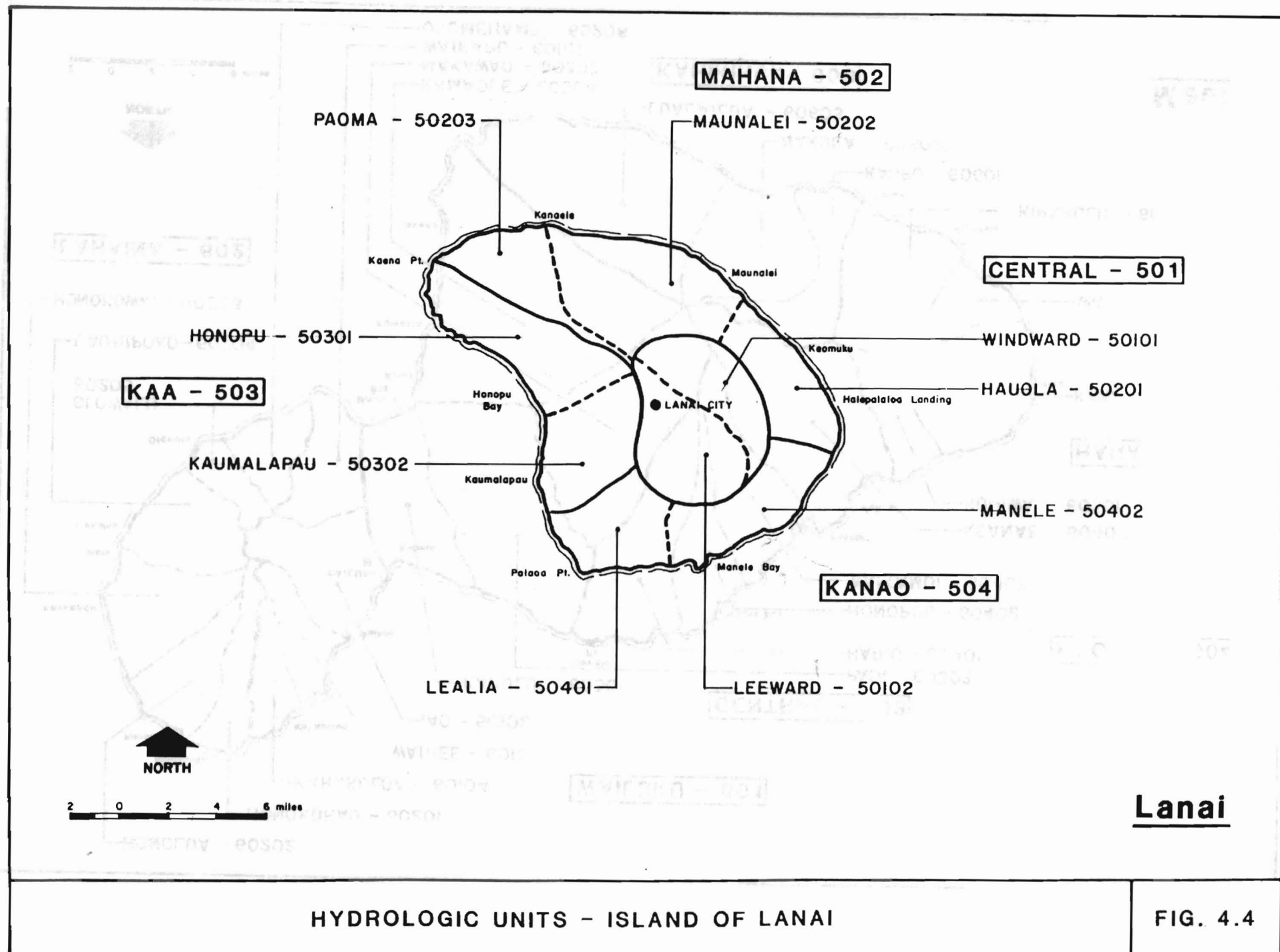
FIG. 4.1



4 - 4







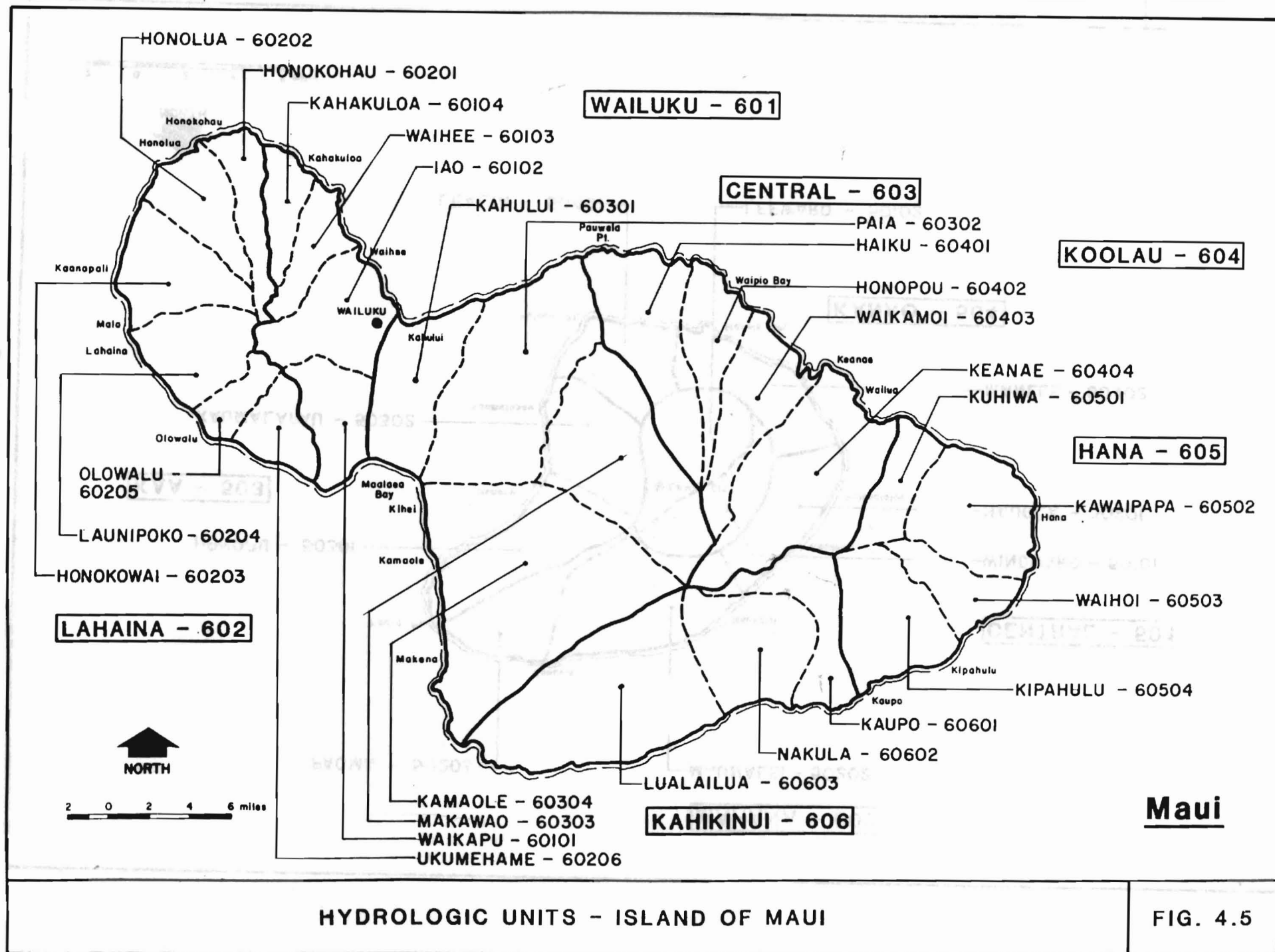
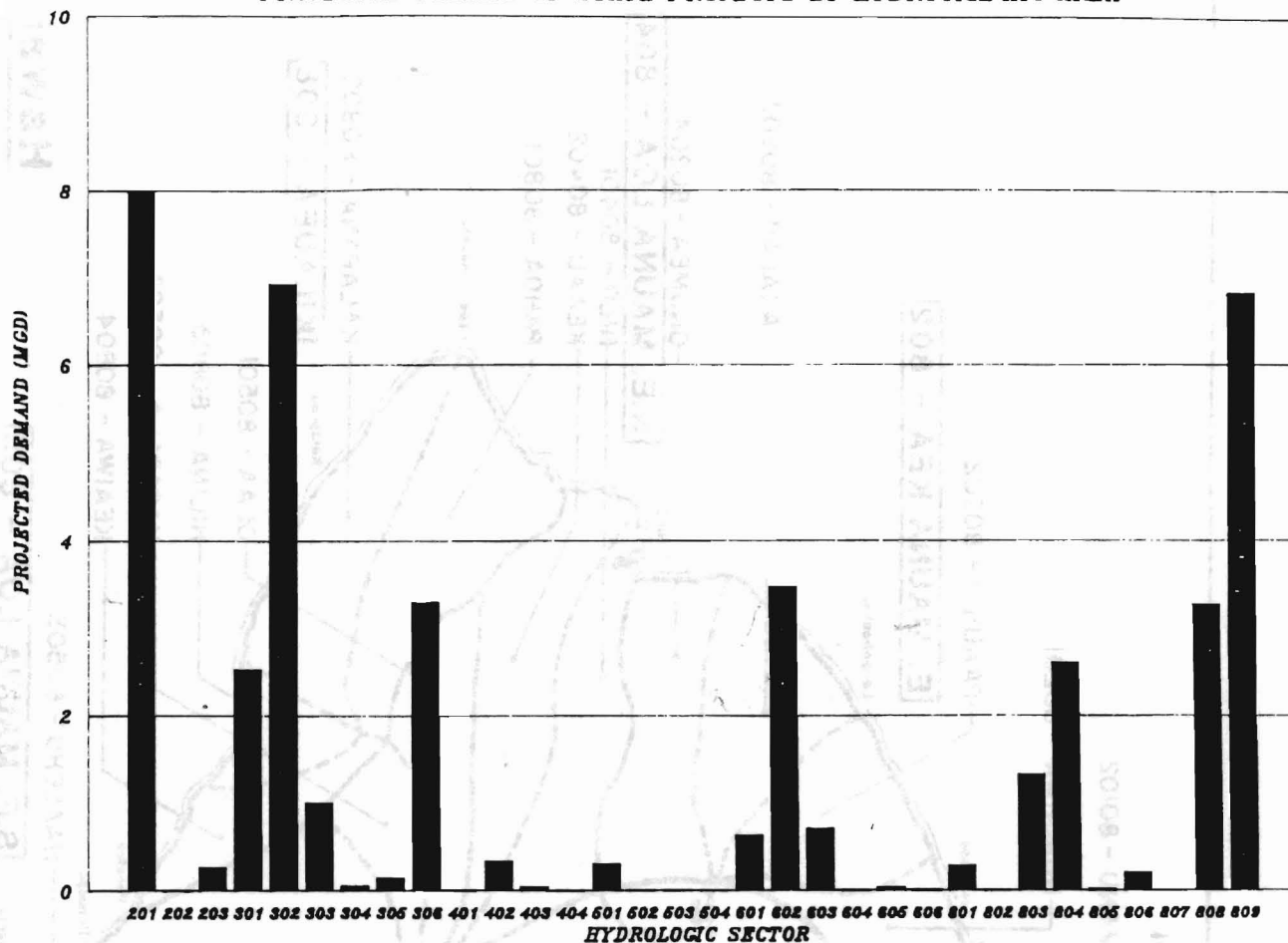
**Maui**

FIG. 4.5



# PROJECTED DEMAND OF STATE PROJECTS BY HYDROGRAPHIC AREA



## STATE WATER PROJECTS PLAN PROJECTED DEMAND OF STATE PROJECTS BY HYDROLOGIC SECTOR

### ISLAND OF KAUAI

201 LIHUE	8.01
202 HANAIEI	0.00
203 WAIIMEA	0.27
<b>TOTAL</b>	<b>8.28</b>

### ISLAND OF MOLOKAI

401 WEST	0.00
402 CENTRAL	0.34
403 SOUTHEAST	0.05
404 NORTHEAST	0.00
<b>TOTAL</b>	<b>0.39</b>

### ISLAND OF MAUI

601 WAILUKU	0.63
602 LAHAINEA	3.48
603 CENTRAL	0.71
604 KOOLAUI	0.00
605 HANA	0.04
606 KAHIKUNUI	0.01
<b>TOTAL</b>	<b>4.87</b>

### ISLAND OF OAHU

301 HONOLULU	2.53
302 PEARL HARBOR	6.91
303 WAIANAE	1.00
304 NORTH	0.06
305 CENTRAL	0.15
306 WINDWARD	3.30
<b>TOTAL</b>	<b>13.95</b>

### ISLAND OF LANAI

501 CENTRAL	0.31
502 MAHANA	0.00
503 KAA	0.01
504 KANAO	0.00
<b>TOTAL</b>	<b>0.32</b>

### ISLAND OF HAWAII

801 KOHALA	0.29
802 EAST MAUNA KEA	0.00
803 WEST MAUNA KEA	1.33
804 N.E. MAUNA LOA	2.61
805 S.E. MAUNA LOA	0.02
806 S.W. MAUNA LOA	0.21
807 N.W. MAUNA LOA	0.00
808 KILAUEA	3.28
809 HUALALAI	6.83
<b>TOTAL</b>	<b>14.57</b>
<b>STATE TOTAL</b>	<b>42.38</b>

Wailua Agricultural Park (1.0 MGD), the Wailua Mauka Housing (0.96 MGD) and the Lihue Airport Masterplan (0.72 MGD).

#### 4.2.3 City and County of Honolulu

The Pearl Harbor and Honolulu sectors exhibit the highest demands. Major projects are the Honolulu International Airport (3.0 MGD), Keehi Lagoon Development (1.08 MGD), Waipahu Livestock Agricultural Park (3.0 MGD), Kapolei Village (2.93 MGD), Kahuku Agricultural Park (2.0 MGD). The airport plan is an expansion, with existing demand being 2.0 MGD. The other projects are proposed new developments.

#### 4.2.4 County of Maui

The Lahaina sector (3.5 MGD) is the only one showing a demand greater than 1.0 MGD. The major project is the Lahaina Master Plan housing project (4800 units). The projected demand of this project is 3.4 MGD.

#### 4.2.5 County of Hawaii

The Hualalai sector (6.8 MGD), Kilauea (3.3 MGD) and N.E. Mauna Loa (2.6 MGD) show major demands. The largest demand of 4.6 MGD is from the HFDC's Kealakehe Masterplan housing project. The other major projects are agricultural parks: Pahoa Agricultural Park, Phases I & II (3.0 MGD); Panaewa Agricultural Park (2.3 MGD).

### 4.3 PROPOSED IMPROVEMENT PROGRAM GUIDELINES

#### 4.3.1 Agricultural Parks

Major project demands have been generated by proposed new agricultural parks and park expansions to be developed by the Department of Agriculture (DOA).

These include:

<u>Project Name</u>	<u>Sector</u>	<u>Project Demand (MGD)</u>
Moloaa Agricultural Park	201	3.8
Wailua Agricultural Park	201	1.0
Waipahu Livestock Agricultural Park	302	3.0
Kahuku Agricultural Park	306	2.0
Pahoa Agricultural Park	808	3.0
Panaewa Agricultural Park	804	2.3

These projects may be developed with exclusive water systems owned and operated by the State. If dedicated for agricultural uses only, these may be sourced with non-potable water. The DOA will investigate water service alternatives for these parks as part of their planning and design process.

If connected to a County system the State will be expected to contribute its proportional share for new source transmission and distribution system development.

#### 4.3.2 Major State Housing Projects

The State, through the HFDC, is developing major housing projects on each island. These include:

<u>Project Name</u>	<u>Sector</u>	<u>Project Demand (MGD)</u>
Wailua Mauka Housing	201	1.0
Kapolei Villages	302	2.9
Lahaina Master Plan Housing	602	3.5
Kealakehe Master Plan Housing	809	4.6

These projects will be serviced by County systems. As the Counties develop the specific improvement requirements and attendant costs, the State will be expected to contribute its proportional share. The State share will be negotiated as each project's schedule is coordinated with the proposed County system improvements to accommodate both the State and other projects.

Requirements for the State Projects have been included in each County Water Use and Development (WUDP).

#### 4.3.3 Other Projects

The numerous other State projects will, in most cases, be serviced by County systems. State connection cost might be separately negotiated or charged according to each County's facilities development charge. Requirements for the State Projects have been included in each County's WUDP.

# **APPENDIX A**

---

## **LISTING OF EXISTING REGISTERED STATE STREAM DIVERSIONS**





HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE DIVERSIONS

STREAM NAME	PRIMARY USE	EST EXIST DIVERSION (MGD)	REMARKS
<b>** DEPARTMENT OF AGRICULTURE</b>			
<b>* ISLAND OF HAWAII</b>			
UPPER HAMAKUA DITCH	IRRIGATION	1.05	TMK 6-04-03:15 WAIMEA IRRIGATION SYSTEM
KAWAINUI STREAM	IRRIGATION	9.24	TMK 6-3-04 WAIMEA IRRIGATION SYSTEM
ALAKAHI STREAM	IRRIGATION	4.45	TMK 6-3-04 WAIMEA IRRIGATION SYSTEM - UPPER HAMAKUA DITCH
KAWAIKI STREAM	IRRIGATION	2.78	TMK 6-03-04 WAIMEA IRRIGATION SYSTEM - UPPER HAMAKUA DITCH
UPPER HAMAKUA DITCH - 60 MG RESERVOIR	IRRIGATION	23.00	TMK 6-4-02:125 WAIMEA IRRIGATION SYSTEM
UPPER HAMAKUA DITCH - WAIMEA INTAKE	IRRIGATION	0.00	TMK 6-03-04 WAIMEA IRRIGATION SYSTEM
UPPER HAMAKUA DITCH - KOIAWE INTAKE	IRRIGATION	0.00	TMK 6-03-04 WAIMEA IRRIGATION SYSTEM
<b>* ISLAND OF OAHU</b>			
MAUNAWILI DITCH - INTAKE #1	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM
AINONI STREAM	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE #10
PIKOAKEA SPRING	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE #1
KAPAKAHI SPRING	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE
MAUNAWILI STREAM	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE
OMAO STREAM	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE DIVERSIONS

STREAM NAME	PRIMARY USE	EST EXIST DIVERSION (MGD) REMARKS
<b>** DEPARTMENT OF HAWAIIAN HOME LANDS</b>		
<b>* ISLAND OF HAWAII</b>		
HAAO SPRING/MOUNTAIN HOUSE TUNNEL	MIXED	0.00 TMK 9-3-01 SUPPLIES KAMAOA-PUUEO WATER SYSTEM
WAIPAHOEHOE STREAM	LIVESTOCK	0.00 TMK 3-6-1:01
WAIMANU STREAM	IRRIGATION	0.00 TMK 3-4-9:13
KILOHANA STREAM	LIVESTOCK	0.00 TMK 3-6-1:01
KEAMEWAI STREAM	LIVESTOCK	0.00 TMK 3-6-1:01
KAWAINUI STREAM	IRRIGATION	0.00 TMK 3-6-3 SOURCE FOR HAMAKUA DITCH
KAWAIKI STREAM	IRRIGATION	0.00 TMK 3-6-3 SOURCE FOR HAMAKUA DITCH
KAHAKAHAU STREAM	LIVESTOCK	0.00 TMK 3-6-2:01
HONOKANE NUI	IRRIGATION	7.50 TMK 3-6-1:01
ALAKAHI STREAM	IRRIGATION	0.00 TMK 3-6-3 SOURCE FOR HAMAKUA DITCH
MAUNA KEA ACCESS ROAD	LIVESTOCK	0.00 TMK 3-3-8:01
<b>* ISLAND OF KAUAI</b>		
WAIMEA RIVER TRIBUTARIES		0.00 DHHL ENTITLED TO ANY SURPLUS FROM SYSTEM
WAIMEA RIVER	AGRICULTURE	15.00 TMK 4-1-2-01
MOLOAA STREAM	LIVESTOCK	0.00 TMK 4-4-9-10
ANAHOLA STREAM	IRRIGATION	0.00
<b>* ISLAND OF MOLOKAI</b>		
WAIKOLU VALLEY SOURCES	IRRIGATION	0.00 TMK 6-1-01
WAIHANAU STREAM	DOMESTIC	0.00 TMK 2-5-2-14 SOURCE FOR HOOLEHUA & KALAMULA HOMESTEADS

A-2

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE DIVERSIONS

STREAM NAME	PRIMARY USE	EST EXIST DIVERSION (MGD) REMARKS
OHIAELE STREAM		0.00 TMK 2-5-4-03 PIPELINES CROSS DHHL LANDS
KAWELA STREAM		0.00 TMK 2-5-4-03 PIPELINES CROSS DHHL LANDS
KANOKU STREAM		0.00 TMK 2-5-4-03 PIPELINES CROSS DHHL LANDS
KAMILOLOA GULCH	DOMESTIC	0.00 TMK 2-5-4-03 SOURCE FOR DHHL WATER SYSTEM
* ISLAND OF OAHU NANAKULI STREAM	AGRICULTURAL	0.00 TMK 1-8-9-17:08

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE DIVERSIONS

STREAM NAME	PRIMARY USE	EST EXIST DIVERSION (MGD) REMARKS
<b>** DEPARTMENT OF LAND &amp; NATURAL RESOURCES</b>		
<b>* ISLAND OF MAUI</b>		
POKAKAEKANE STREAM	IRRIGATION	0.40 TMK 1-1-02-2 KEANAE ARBORETUM IRRIGATION WATER SUPPLY
<b>* ISLAND OF MOLOKAI</b>		
WAIKOLU STREAM	POTABLE	0.01 TMK 2-6-01-2 WAIKOLU LOOKOUT FAUCET
<b>* ISLAND OF HAWAII</b>		
HOPUKANI SPRINGS	MIXED	0.00 TMK 4-4-15:1,9 MAUNA KEA STATE RECREATION AREA WATER SUPPLY
KOHALA DITCH	MIXED	0.00 LAPAKAHI STATE PARK WATER SUPPLY
<b>* ISLAND OF KAUAI</b>		
ELEKENINUI STREAM	POTABLE	0.00 TMK 1-4-1:13 KOKEE STATE PARK WATER SUPPLY
UNNAMED STREAM AT KEE BEACH HAENA	POTABLE	0.00 TMK 5-9-7:12 PARK WATER SUPPLY
KOKEE DITCH	POTABLE	0.00 TMK 1-2-1:3 WAIMEA CANYON COMFORT STATION WATER SUPPLY
MILOLII STREAM	POTABLE	0.00 TMK 1-4-01:07 PARK SUPPLY
WAILUA RIVER	POTABLE	0.00 TMK 3-9-2:06 FERN GROTTO COMFORT STATION WATER SUPPLY
<b>* ISLAND OF MAUI</b>		
IAO STREAM	MIXED	0.00 TMK 3-3-03:12

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE DIVERSIONS

STREAM NAME	PRIMARY USE	EST EXIST DIVERSION (MGD)	REMARKS
HAIPUENA STREAM	POTABLE	0.00	TMK 1-1-01 KAUMAHINA STATE PARK WATER SUPPLY
WAIOHUE STREAM	POTABLE	0.00	TMK 1-2-04 PUA'A KA'A STATE PARK WATER SUPPLY
* ISLAND OF MOLOKAI			
WAIKOLU STREAM	IRRIGATION	0.00	TMK 6-1-01 DHHL HOOLEHUA AG LOTS PH I & II
WAIKOLU STREAM	IRRIGATION	0.00	WAIKOLU DAM #3 DHHL HOOLEHUA AG LOTS PH I & II
WAIKOLU STREAM	IRRIGATION	0.00	WAIKOLU DAM NO. 1 DHHL HOOLEHUA AG LOTS PH I & II
WAIKOLU STREAM	IRRIGATION	0.00	WAIKOLU DAM NO. 2 DHHL HOOLEHUA AG LOTS PH I & II





## **APPENDIX B**

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### **LISTING OF EXISTING REGISTERED STATE WELLS**

## APPENDIX B

ATING OR EXISTING REGISTERED STATE WELLS

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE WELLS

STATE	WELL NO.	WELL NAME OR DESIGNATION	PRIMARY USE	EST EXIST PUMPAGE (MGD)	REMARKS
=====	=====	=====	=====	=====	=====

\*\* DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

\* ISLAND OF OAHU

1851-61	STATE CAPITOL WELL #1 (HOTEL)	COOLING	0.70	TMK 2-1-24:01	AIR CONDITIONING CONDENSER
1851-76	STATE CAPITOL WELL # 2 (QUEENS)	NON-POTABLE	0.70	TMK 2-1-24:01	SOURCE FOR REFLECTING POOL
5042-05	KOHELE 1 WELLS				
5042-05	CHINA WELLS				
5042-05	CHINA WELLS				
5042-05	CHINA WELLS				
5042-05	CHINA WELLS				
5042-05	CHINA WELLS				
5042-05	CHINA WELLS				
5042-05	CHINA WELLS				
5042-05	CHINA WELLS				

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WELLS  
AT EXIST

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE WELLS

STATE			EST EXIST	
WELL NO.	WELL NAME OR DESIGNATION	PRIMARY USE	PUMPAGE (MGD)	REMARKS
=====	=====	=====	=====	=====

\*\* DEPARTMENT OF AGRICULTURE

\* ISLAND OF OAHU

2147-01	SHAUGHNESSY TUNNEL	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE
2146-02	AINONI SPRING	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE
2146-01	COOKE TUNNEL	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE
2046-03	CLARK TUNNEL	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE
2045-02	KOREAN TUNNEL	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE
2045-01	FAULT TUNNEL	IRRIGATION	0.00	WAIMANALO IRRIGATION SYSTEM MAUNAWILI DITCH INTAKE

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE WELLS

STATE	WELL NO.	WELL NAME OR DESIGNATION	PRIMARY USE	EST EXIST PUMPAGE (MGD)	REMARKS
** DEPARTMENT OF HAWAIIAN HOME LANDS					
* ISLAND OF HAWAII					
		PANAWEA NO. 1		0.00	TMK 3-2-1-25:132-134 PANAWEA HOUSE & FARM LOTS
		KAWAIHAE		0.00	TMK 3-8-1-01
		PUUEO		0.00	TMK 3-8-3-01
* ISLAND OF KAUAI					
	0919-01	ANAHOLA WELL	IRRIGATION	0.75	TMK 4-8-05
* ISLAND OF MOLOKAI					
		WAIKOLU VALLEY WELLS #22, #23 & #24	IRRIGATION	0.00	TMK 6-1-01 MOLOKAI IRRIGATION SYSTEM
	0801-02	KAULUWAI	POTABLE	0.39	TMK 2-5-2-10:53
	0803-02	UMIPAA		0.00	TMK 2-5-2-10
	0802-02	KALAMAULA NO. 2		0.00	TMK 2-5-2-10
	0802-01	KALAMAULA NO. 1		0.00	TMK 2-5-2-10
	0500-01	KAPAAKEA		0.00	TMK 2-5-4-03
	0459-03	KAMILOLOA T HOLE		0.00	TMK 2-5-4-03
	0400-01	KAMILOLOA		0.00	TMK 2-5-4-03
	0801-01	KAULUWAI WELL # 15	POTABLE	0.02	TMK 2-5-2-10:53

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE WELLS

STATE	WELL NO.	WELL NAME OR DESIGNATION	PRIMARY USE	EST EXIST PUMPAGE (MGD)	REMARKS
=====					
** DEPARTMENT OF HEALTH	0401-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0402-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0403-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0404-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0405-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
* ISLAND OF OAHU	2448-01	HAWAII STATE HOSPITAL	IRRIGATION	0.40	1981-1982
	0406-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0407-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0408-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0409-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
* ISLAND OF MAUI	0410-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0411-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0412-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0413-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0414-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
* ISLAND OF KAUAI	0415-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0416-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0417-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0418-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0419-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
* ISLAND OF LANAI	0420-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0421-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0422-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0423-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0424-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
* ISLAND OF NIIHAU	0425-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0426-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0427-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0428-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982
	0429-01	WINDWARD WATERS	IRRIGATION	0.00	1981-1982

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE WELLS

STATE	WELL NO.	WELL NAME OR DESIGNATION	PRIMARY USE	EST EXIST PUMPAGE (MGD)	REMARKS
** DEPARTMENT OF LAND & NATURAL RESOURCES					
* ISLAND OF OAHU					
	1852-08	ANUENUE FISHERIES SEAWATER WELL	SEAWATER	0.58	TMK 1-5-41:06
* ISLAND OF MAUI					
		KANAHU POND WILDLIFE SANCTUARY	NON-POTABLE	0.72	TMK 3-8-01:19 WATER LEVEL MANAGEMENT
* ISLAND OF HAWAII					
	5948-01	HAPUNA BEACH STATE RECREATION AREA	POTABLE	0.00	TMK 6-6-1:2 PARK WATER SUPPLY
* ISLAND OF KAUAI					
	0221-01	WAILUA RIVER (FERN GROTTO)		0.00	TMK 3-8-3:06
	0739-01	KOKEE STATE PARK (ELEKINIKI STREAM)	POTABLE	0.00	TMK 1-4-1:13 PARK WATER SUPPLY
* ISLAND OF OAHU					
		MAKAPUU LIGHTHOUSE WATERHEAD	NOT IN USE	0.00	TMK 4-1-11:02
		KAIKA STATE RECREATION AREA		0.00	TMK 6-6-07:07
		KAHANA VALLEY STATE PARK		0.00	TMK 5-2-02
	3213-07	KAENA POINT STATE PARK (MAKUA)		0.00	TMK 8-1-01:19
	0545-01	POLIHALE STATE PARK - KAULAULA VALLEY	POTABLE	0.00	TMK 1-2-2:01 PARK WATER SUPPLY
* ISLAND OF MOLOKAI					
	0855-01	WAIKOLU TUNNEL WELL	IRRIGATION	0.00	TMK 6-1-01 MOLOKAI IRRIGATION SYSTEM

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WGSN 1531071179 2021/01/01

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LIST OF EXISTING REGISTERED STATE WELLS

STATE	WELL NO.	WELL NAME OR DESIGNATION	PRIMARY USE	EST EXIST PUMPAGE (MGD)	REMARKS
=====	=====	=====	=====	=====	=====

\*\* DEPARTMENT OF TRANSPORTATION

\* ISLAND OF OAHU

3412-03	DILLINGHAM MILITARY RESERVATION	MIXED	0.05	TMK 6-8-01:03
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## **APPENDIX C**

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### **LISTING OF EXISTING STATE OPERATED WATER SYSTEMS**



HAWAII WATER PLAN  
STATE PROJECTS PLAN  
INVENTORY OF EXISTING STATE OPERATED WATER SYSTEMS  
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PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
** ISLAND OF HAWAII											
* DEPARTMENT OF CORRECTIONS KULANI CORRECTIONAL CENTER	NORTHEAST MAUNA LOA	HILLO	80401	SURFACE	POTABLE	204	0.05	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF LAND & NATURAL RESOURCES MAUNA KEA STATE PARK	WEST MAUNA KEA	DIVISION OF STATE PARKS MAINEA	80301	GROUNDWATER	POTABLE	25	0.00	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF LAND & NATURAL RESOURCES MAINEA IRRIGATION SYSTEM (HAW'N HOMES)	EAST MAUNA KEA	DIVISION OF WATER AND LAND DEVELOPMENT HONOKAA	80201	COMBINED	IRRIGATION	0	0.00	103.00	0.00	0.08	EXISTING STATE OPERATED SYSTEM
* MAINEA IRRIGATION SYSTEM (LALANILO)	EAST MAUNA KEA	HONOKAA	80201	COMBINED	IRRIGATION	0	0.00	278.00	0.00	0.94	EXISTING STATE OPERATED SYSTEM
* MAINEA IRRIGATION SYSTEM (PUUKAPU)	EAST MAUNA KEA	HONOKAA	80201	COMBINED	IRRIGATION	0	0.00	108.00	0.00	0.10	EXISTING STATE OPERATED SYSTEM
** ISLAND OF KAUAI											
* DEPARTMENT OF DEFENSE KOEKE STATION	MAINEA	AIR NATIONAL GUARD MAINEA	20302	GROUNDWATER	POTABLE	200	0.01	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF HAWAIIAN HOME LANDS ANAHOLA FARM LOTS (EXISTING)	LIHUE	ANAHOLA	20104	GROUNDWATER	COMBINED	22	0.01	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF LAND & NATURAL RESOURCES POLIHOLE STATE PARK	MAINEA	DIVISION OF STATE PARKS KEKAHA	20301	GROUNDWATER	POTABLE	1000	0.06	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
** ISLAND OF MAUI											
* DEPARTMENT OF EDUCATION LAHAINA HIGH SCHOOL	LAHAINA	LAUNIUPOKO	60204	SURFACE	POTABLE	800	0.05	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF HAWAIIAN HOME LANDS KAHIKIHUI - LIVESTOCK	KAHIKIHUI	LUALAILUA	80603	GROUNDWATER	LIVESTOCK	0	0.00	0.00	0.00	0.01	MAUI FACTORS STOCKWATER WELL - 1760 PPM SALINE CAPACITY NOT KNOWN
* DEPARTMENT OF LAND & NATURAL RESOURCES KAUNAHANA STATE PARK	KOOLAU	DIVISION OF STATE PARKS WAIKAMOI	80403	SURFACE	POTABLE	300	0.02	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
** ISLAND OF MOLOKAI											
* DEPARTMENT OF HAWAIIAN HOME LANDS HOOLEHUA	CENTRAL	HOOLEHUA	40201	GROUNDWATER	POTABLE	1700	0.42	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF LAND & NATURAL RESOURCES WATALALA STATE PARK	CENTRAL	DIVISION OF STATE PARKS KUALAPUU	40203	GROUNDWATER	POTABLE	500	0.03	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM

HAWAII WATER PLAN  
STATE PROJECTS PLAN  
INVENTORY OF EXISTING STATE OPERATED WATER SYSTEMS

PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
DEPARTMENT OF LAND & NATURAL RESOURCES MOLOKAI IRRIGATION SYSTEM		DIVISION OF WATER AND LAND DEVELOPMENT	0 COMBINED	IRRIGATION	0	0.00	4410.00	0.00	3.40	EXISTING STATE OPERATED SYSTEM
ISLAND OF OAHU										
DEPARTMENT OF AGRICULTURE KAHUKU AGRICULTURAL PARK	WINDWARD	KOOLAULO	30601 GROUNDWATER	COMBINED	25	0.01	780.00	3.90	2.00	PROPOSED STATE OPERATED SYSTEM
WAINAMALO AGRICULTURAL PARK	WINDWARD	WAINAMALO	30801 SURFACE WATER	IRRIGATION	20	0.01	198.00	0.98	0.00	WAINAMALO IRRIGATION SYSTEM & HONOLULU BWS
DEPARTMENT OF CORRECTIONS WAIAHA CORRECTIONAL FACILITY	PEARL HARBOR	WAIAHA	30202 SURFACE	POTABLE	200	0.05	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
DEPARTMENT OF HEALTH HAWAII STATE HOSPITAL	WINDWARD	KOOLAUPOKO	30603 GROUNDWATER	POTABLE	2000	0.50	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
WAIMANO TRAINING SCHOOL	PEARL HARBOR	WAIMALU	30201 GROUNDWATER	POTABLE	235	0.06	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
DEPARTMENT OF LAND & NATURAL RESOURCES KAHANA STATE PARK	WINDWARD	DIVISION OF STATE PARKS KAHANA	30602 GROUNDWATER	POTABLE	130	0.01	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
DEPARTMENT OF LAND & NATURAL RESOURCES WAINAMALO IRRIGATION SYSTEM	WINDWARD	DIVISION OF WATER AND LAND DEVELOPMENT WAINAMALO	30804 COMBINED	IRRIGATION	0	0.00	974.00	0.00	0.18	EXISTING STATE OPERATED SYSTEM
DEPARTMENT OF TRANSPORTATION DILLINGHAM FIELD - MOKULEIA	NORTH	AIRPORTS DIVISION MOKULEIA	30401 GROUNDWATER	POTABLE	1800	0.11	0.00	0.00	0.11	EXISTING PUBLIC WATER SYSTEM

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## **APPENDIX D**

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### **INVENTORY OF PROPOSED STATE PROJECTS**

APPENDIX D

INVENTORY OF PROPOSED STATE PROJECTS



1  
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3



HAWAII WATER PLAN  
STATE PROJECTS PLAN  
INVENTORY OF PROPOSED STATE PROJECTS  
=====

PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE	TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
<b>** ISLAND OF HAWAII</b>												
<b>* DEPARTMENT OF AGRICULTURE</b>												
PAHOA AGRICULTURAL PARK PHASE I	KILAUEA	PAHOA	80801	GROUNDWATER		COMBINED	27	0.01	410.00	2.05	0.00	
PAHOA AGRICULTURAL PARK PHASE II	KILAUEA	PAHOA	80801	GROUNDWATER		COMBINED	33	0.01	189.00	0.94	0.00	
PANAHEA AGRICULTURAL PARK	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER		COMBINED	29	0.01	480.00	2.30	0.00	
KE-AHOLE AGRICULTURAL PARK PHASE I	HUALALAI	KEAUHOU	80901	GROUNDWATER		COMBINED	12	0.00	85.00	0.33	0.00	
KE-AHOLE AGRICULTURAL PARK PHASE II	HUALALAI	KEAUHOU	80901	GROUNDWATER		COMBINED	22	0.01	114.00	0.57	0.00	
WAIHEA AGRICULTURAL PARK - LALAMILLO ADD	WEST MAUNA KEA	WAIHEA	80301	SURFACE WATER		IRRIGATION	0	0.00	183.00	0.81	0.00	
<b>* DEPARTMENT OF BUDGET &amp; FINANCE</b>												
<b>HOUSING FINANCE &amp; DEVELOPMENT CORP</b>												
LA'ILANI	HUALALAI	KEAUHOU	80901	GROUNDWATER		POTABLE	200	0.08	15.50	0.05	0.00	TKM: 7-4-17:30
NOELANI II - PUBLIC HOUSING	KOHALA	MAHUKONA	80103			POTABLE	24	0.01	0.69	0.00	0.00	TKM: 8-5-09:POR. 28
HAWAII COMMUNITY COLLEGE VIII ('89-'90)	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER		POTABLE	1	0.00	0.23	0.00	0.00	TKM: 2-4-28:48
LALAMILLO/LOWER	WEST MAUNA KEA	WAIHEA	80301	GROUNDWATER		POTABLE	28	0.01	12.45	0.04	0.00	TKM: 8-6-01:POR. 54 & 6-6-08:POR. 1
PIIHONUA MEADOWS	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER		POTABLE	37	0.01	10.89	0.03	0.00	TKM: 2-5-10:POR. 1
HILOLII SELF-HELP PROGRAM	SOUTHWEST MAUNA LOA	KAAPUNA	80802	GROUNDWATER		POTABLE	23	0.01	49.00	0.15	0.00	TKM: 8-9-04:7, 21 & 22
KEALAKEHE PLANNED COMMUNITY - PHASE I	HUALALAI	KEAUHOU	80901	GROUNDWATER		POTABLE	450	0.18	90.00	0.27	0.00	TKM: 7-4-08:POR. 17, TKM: 7-4-19:POR. 43
KEALAKEHE MASTER PLAN	HUALALAI	KEAUHOU	80901	GROUNDWATER		POTABLE	3900	1.58	1540.00	4.62	0.00	TKM: 7-4-08:3 & 17
HALE NANA OLAMA	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER		POTABLE	41	0.02	12.60	0.04	0.00	TKM: 2-4-01:158
LALAMILLO/UPPER	WEST MAUNA KEA	WAIHEA	80301	GROUNDWATER		POTABLE	400	0.18	100.00	0.30	0.00	TKM: 8-6-01:POR. 2
HAWAII COMMUNITY COLLEGE IX ('90-'91)	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER		POTABLE	1	0.00	0.23	0.00	0.00	TKM: 2-4-28:47
HAWAII COMMUNITY COLLEGE X ('91-'92)	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER		POTABLE	1	0.00	0.23	0.00	0.00	TKM: 2-4-28:48
<b>* DEPARTMENT OF BUSINESS &amp; ECONOMIC DEVELOPMENT</b>												
<b>NATURAL ENERGY LABORATORY OF HAWAII</b>												
	HUALALAI	KEAUHOU	80901	GROUNDWATER		COMBINED	0	0.00	0.00	0.00	0.12	
<b>* DEPARTMENT OF BUSINESS &amp; ECONOMIC DEVELOPMENT</b>												
<b>BUSINESS DEVELOPMENT &amp; MARKETING</b>												
SPACE LAUNCH FACILITY - PALIMA POINT	KILAUEA	KEAIIWA	80804			COMBINED	0	0.00	1200.00	4.80	0.16	PALIMA PT. - RECOMMENDED SITE KAHILIPALI PT. - ALTERNATIVE SITE
<b>* DEPARTMENT OF BUSINESS &amp; ECONOMIC DEVELOPMENT</b>												
<b>HIGH TECHNOLOGY DEVELOPMENT CORP</b>												
HAWAII OCEAN SCIENCE & TECHNOLOGY PARK	HUALALAI	KEAUHOU	80901	GROUNDWATER		COMBINED	0	0.00	0.00	0.00	0.39	
<b>* DEPARTMENT OF CORRECTIONS</b>												
KULANI CORRECTIONAL CENTER	NORTHEAST MAUNA LOA	HILO	80401	SURFACE		POTABLE	204	0.05	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
<b>* DEPARTMENT OF EDUCATION</b>												
NEW KONAWAENA ELEMENTARY SCHOOL	SOUTHWEST MAUNA LOA	KEALAKEUA	80603	GROUNDWATER		POTABLE	1000	0.08	0.00	0.00	0.00	
NEW PAHOA ELEMENTARY SCHOOL	KILAUEA	PAHOA	80801	GROUNDWATER		POTABLE	1000	0.08	0.00	0.00	0.00	
WEST HAWAII ELEMENTARY SCHOOL			0			POTABLE	1000	0.08	0.00	0.00	0.00	
WAIKOLOA/WAIHEA ELEMENTARY SCHOOL	WEST MAUNA KEA	WAIHEA	80301			POTABLE	1000	0.08	0.00	0.00	0.00	
NEW KEEAU ELEMENTARY SCHOOL	NORTHEAST MAUNA LOA	KEAAU	80402	GROUNDWATER		POTABLE	1000	0.08	0.00	0.00	0.00	

HAWAII WATER PLAN  
STATE PROJECTS PLAN  
INVENTORY OF PROPOSED STATE PROJECTS

PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
<b>DEPARTMENT OF HAWAIIAN HOME LANDS</b>											
HUMUULA - PASTURE LOTS	EAST MAUNA KEA	HAKALAU	80203		POTABLE	12	0.00	0.00	0.00	0.00	
KAMAQA - PUUEO FARM LOTS	SOUTHEAST MAUNA LOA	KALAE	80504		COMBINED	50	0.02	0.00	0.00	0.00	
KAWAIAE - RESIDENCE LOTS MAKAI	KOHALA	MAHUKOMA	80103		POTABLE	22	0.01	0.00	0.00	0.00	
KEAUKAHA - RESIDENCE LOTS UNIT 2	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER	POTABLE	83	0.03	0.00	0.00	0.00	
PANAHEWA - FARM LOTS (AUNAE ST)	NORTHEAST MAUNA LOA	HILO	80401		COMBINED	81	0.02	0.00	0.00	0.00	
MAKUU - FARM LOTS (2 ACRES)	KILAUEA	PANOA	80801		COMBINED	50	0.02	0.00	0.00	0.00	
MAIAKEA - RESIDENCE LOTS UNIT 2A-5	NORTHEAST MAUNA LOA	HILO	80401		POTABLE	20	0.01	0.00	0.00	0.00	
PUUKAPU - RESIDENCE LOTS (PUU PELEHU)	WEST MAUNA KEA	WAINEA	80301		POTABLE	33	0.01	0.00	0.00	0.00	
KAMAQA - PASTURE LOTS	SOUTHEAST MAUNA LOA	KALAE	80504		COMBINED	25	0.01	0.00	0.00	0.00	
KAWAIAE - RESIDENCE LOTS (MAUKA)	KOHALA	MAHUKOMA	80103		POTABLE	195	0.08	0.00	0.00	0.00	
MAKUU - FARM LOTS (5 ACRE)	KILAUEA	PANOA	80801		COMBINED	127	0.05	0.00	0.00	0.00	
PANAHEWA - FARM LOTS PUNA PAPAYA	NORTHEAST MAUNA LOA	HILO	80401		COMBINED	28	0.01	0.00	0.00	0.00	
PANAHEWA - RESIDENCE LOTS UNIT 4	NORTHEAST MAUNA LOA	HILO	80401		POTABLE	50	0.02	0.00	0.00	0.00	
PUUKAPU - FARM LOTS UNIT 2, 2A	WEST MAUNA KEA	WAINEA	80301		COMBINED	75	0.03	0.00	0.00	0.00	
PUUKAPU - PASTURE LOTS	WEST MAUNA KEA	WAINEA	80301		COMBINED	98	0.04	0.00	0.00	0.00	
PUUKAPU - PASTURE LOTS PUUKAPU 3	WEST MAUNA KEA	WAINEA	80301		COMBINED	100	0.04	0.00	0.00	0.00	
<b>DEPARTMENT OF LAND &amp; NATURAL RESOURCES</b>											
<b>DIVISION OF STATE PARKS</b>											
OLD KONA AIRPORT EXPANSION	HUALALAI	KEAUHOU	80901	GROUNDWATER	POTABLE	0	0.00	0.00	0.00	0.17	
COASTAL PARK - MAHAULA/MAKALAWENA/ETC	HUALALAI	KEAUHOU	80901	GROUNDWATER	POTABLE	0	0.00	0.00	0.00	0.00	
MAUNA KEA STATE PARK	WEST MAUNA KEA	WAINEA	80301	GROUNDWATER	POTABLE	25	0.00	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
<b>DEPARTMENT OF LAND &amp; NATURAL RESOURCES</b>											
<b>DIVISION OF WATER AND LAND DEVELOPMENT</b>											
WAINEA IRRIGATION SYSTEM (LALAWILO)	EAST MAUNA KEA	HOMOKAA	80201	COMBINED	IRRIGATION	0	0.00	278.00	0.00	0.94	EXISTING STATE OPERATED SYSTEM
WAINEA IRRIGATION SYSTEM (PUUKAPU)	EAST MAUNA KEA	HOMOKAA	80201	COMBINED	IRRIGATION	0	0.00	108.00	0.00	0.10	EXISTING STATE OPERATED SYSTEM
WAINEA IRRIGATION SYSTEM (HAWAII HOMES)	EAST MAUNA KEA	HOMOKAA	80201	COMBINED	IRRIGATION	0	0.00	103.00	0.00	0.08	EXISTING STATE OPERATED SYSTEM
<b>DEPARTMENT OF TRANSPORTATION</b>											
<b>AIRPORTS DIVISION</b>											
KEAHOLE AIRPORT	HUALALAI	KEAUHOU	80901	GROUNDWATER	POTABLE	0	0.00	3270.00	0.00	0.34	
GENERAL LYMAN FIELD MASTER PLAN	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER	COMBINED	0	0.00	1340.00	0.00	0.07	
<b>DEPARTMENT OF TRANSPORTATION</b>											
<b>HARBORS DIVISION</b>											
HONOKOHU HARBOR EXPANSION	HUALALAI	KEAUHOU	80901	GROUNDWATER	POTABLE	0	0.00	0.00	0.00	0.13	ULTIMATE DEMAND BASED ON WATER MASTER PLAN
HILO HARBOR - 2010 MASTER PLAN	NORTHEAST MAUNA LOA	HILO	80401	GROUNDWATER	COMBINED	0	0.00	23.80	0.04	0.09	
KAWAIAE HARBOR - 2010 MASTER PLAN	KOHALA	MAHUKOMA	80103	GROUNDWATER	COMBINED	0	0.00	22.30	0.04	0.14	
KAWAIAE BOAT HARBOR	KOHALA	MAHUKOMA	80103	GROUNDWATER	POTABLE	291	0.09	0.00	0.00	0.09	

HAWAII WATER PLAN  
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PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
** ISLAND OF KAUAI											
* DEPARTMENT OF AGRICULTURE											
WAILUA AGRICULTURAL PARK	WAILUA	LIHUE	20103	SURFACE WATER	IRRIGATION	0	0.00	200.00	1.00	1.00	
MOLOAA AGRICULTURAL PARK	LIHUE	ANAHOLA	20104	GROUNDWATER	IRRIGATION	0	0.00	780.00	3.80	0.00	
* DEPARTMENT OF BUDGET & FINANCE											
HOUSING FINANCE & DEVELOPMENT CORP											
PUHI	LIHUE	HANAMAULU	20102	GROUNDWATER	POTABLE	13	0.01	2.00	0.01	0.00	TMK: 3-3-07:2
HANAPEPE STATE LAND - HANAPEPE HEIGHTS	WAIIMEA	KAKAMELI	20303	GROUNDWATER	POTABLE	318	0.16	85.00	0.26	0.00	TMK: 1-8-07:POR. 3 & 18
KAUAI RENTAL	LIHUE	HANAMAULU	20102	GROUNDWATER	POTABLE	100	0.05	0.00	0.00	0.00	
AMFAC PARCEL - HANAMAULU	LIHUE	HANAMAULU	20102	GROUNDWATER	POTABLE	400	0.20	88.80	0.21	0.00	TMK: 3-7-03:20
WAILUA MAUKA	LIHUE	WAILUA	20103	GROUNDWATER	POTABLE	1920	0.96	320.20	0.96	0.00	TMK: 3-9-02:12
KAUAI ELDERLY	LIHUE	HANAMAULU	20102	GROUNDWATER	POTABLE	50	0.03	0.00	0.00	0.00	
ARC OF HAWAII - PROJECT #10 (LIHUE)	LIHUE	HANAMAULU	20102	GROUNDWATER	POTABLE	1	0.00	0.34	0.00	0.00	TMK: 3-8-06:89
MOLOKOA PROJECT	LIHUE	HANAMAULU	20102	GROUNDWATER	POTABLE	0	0.00	197.00	0.59	0.00	TMK: 3-8-02:
WAILUA MAKAI	LIHUE	WAILUA	20103	GROUNDWATER	POTABLE	218	0.00	41.67	0.13	0.00	TMK: 3-9-06:9, SEE FACT SHEET KAUAI COUNTY HOUSING AGENCY: KAUAI COUNTY WANTS OPEN SPACE.
WELIWELI PROJECT	LIHUE	KOLOA	20101	GROUNDWATER	POTABLE	340	0.00	86.10	0.20	0.00	TMK: 2-8-72:8
* DEPARTMENT OF DEFENSE											
AIR NATIONAL GUARD											
KOKEE STATION	WAIIMEA	WAIIMEA	20302	GROUNDWATER	POTABLE	200	0.01	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF EDUCATION											
HANAMAULU/WAILUA ELEMENTARY SCHOOL	LIHUE	HANAMAULU	20102	GROUNDWATER	POTABLE	1000	0.06	0.00	0.00	0.00	
KAPAA INTERMEDIATE SCHOOL	LIHUE	ANAHOLA	20104	GROUNDWATER	POTABLE	1500	0.09	0.00	0.00	0.00	
KAPAA II ELEMENTARY SCHOOL	LIHUE	ANAHOLA	20104	GROUNDWATER	POTABLE	1000	0.06	0.00	0.00	0.00	
* DEPARTMENT OF HAWAIIAN HOME LANDS											
MOLOAA - PASTURE LOTS	LIHUE	ANAHOLA	20104	COMBINED		8	0.00	0.00	0.00	0.00	
KEKAHA - RESIDENCE LOTS UNIT2	WAIIMEA	KEKAHA	20301	POTABLE		21	0.01	0.00	0.00	0.00	
ANAHOLA - RESIDENCE LOTS UNIT3	LIHUE	ANAHOLA	20104	POTABLE		36	0.02	0.00	0.00	0.00	
MOLOAA - FARM LOTS	LIHUE	ANAHOLA	20104	COMBINED		20	0.01	0.00	0.00	0.00	
ANAHOLA - RESIDENCE LOTS UNIT 4	LIHUE	ANAHOLA	20104	POTABLE		90	0.04	0.00	0.00	0.00	
ANAHOLA - RESIDENCE LOTS UNIT 5	LIHUE	ANAHOLA	20104	POTABLE		40	0.02	0.00	0.00	0.00	
ANAHOLA - RESIDENCE LOTS J & K	LIHUE	ANAHOLA	20104	POTABLE		23	0.01	0.00	0.00	0.00	
ANAHOLA - RESIDENCE LOTS (VILLAGE)	LIHUE	ANAHOLA	20104	POTABLE		27	0.01	0.00	0.00	0.00	
ANAHOLA - RESIDENCE LOTS BAYVIEW	LIHUE	ANAHOLA	20104	POTABLE		81	0.03	0.00	0.00	0.00	
ANAHOLA - RESIDENCE LOTS M	LIHUE	ANAHOLA	20104	POTABLE		40	0.02	0.00	0.00	0.00	
ANAHOLA - FARM LOTS UNIT 1A INCREMENT 2	LIHUE	ANAHOLA	20104	COMBINED		4	0.00	0.00	0.00	0.00	
ANAHOLA FARM LOTS (EXISTING)	LIHUE	ANAHOLA	20104	GROUNDWATER	COMBINED	22	0.01	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF LAND & NATURAL RESOURCES											
DIVISION OF STATE PARKS											
POLIHALE STATE PARK	WAIIMEA	KEKAHA	20301	GROUNDWATER	POTABLE	1000	0.06	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM

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PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
DEPARTMENT OF TRANSPORTATION LIHUE AIRPORT MASTER PLAN	LIHUE	HANAMAULU	20102	GROUNDWATER	COMBINED	0	0.00	30.00	0.12	0.72	
DEPARTMENT OF TRANSPORTATION PORT ALLEN HARBOR - 2010 MASTER PLAN	LIHUE	KOLOA	20101	GROUNDWATER	COMBINED	0	0.00	2.60	0.01	0.02	
DEPARTMENT OF TRANSPORTATION HAWAIIAN HARBOR - 2010 MASTER PLAN	LIHUE	HANAMAULU	20102	GROUNDWATER	COMBINED	0	0.00	24.20	0.05	0.10	
DEPARTMENT OF TRANSPORTATION AHUKINI RD & KAPULE HWY LANDSCAPING	LIHUE	HANAMAULU	20102	GROUNDWATER	IRRIGATION	0	0.00	0.00	0.00	0.00	

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DEPARTMENT OF TRANSPORTATION	LIHUE	HANAMAULU	20102	GROUNDWATER	COMBINED	0	0.00	30.00	0.12	0.72	
DEPARTMENT OF TRANSPORTATION	LIHUE	KOLOA	20101	GROUNDWATER	COMBINED	0	0.00	2.60	0.01	0.02	
DEPARTMENT OF TRANSPORTATION	LIHUE	HANAMAULU	20102	GROUNDWATER	COMBINED	0	0.00	24.20	0.05	0.10	
DEPARTMENT OF TRANSPORTATION	LIHUE	HANAMAULU	20102	GROUNDWATER	IRRIGATION	0	0.00	0.00	0.00	0.00	

DEPARTMENT OF TRANSPORTATION	LIHUE	HANAMAULU	20102	GROUNDWATER	COMBINED	0	0.00	30.00	0.12	0.72	
DEPARTMENT OF TRANSPORTATION	LIHUE	KOLOA	20101	GROUNDWATER	COMBINED	0	0.00	2.60	0.01	0.02	
DEPARTMENT OF TRANSPORTATION	LIHUE	HANAMAULU	20102	GROUNDWATER	COMBINED	0	0.00	24.20	0.05	0.10	
DEPARTMENT OF TRANSPORTATION	LIHUE	HANAMAULU	20102	GROUNDWATER	IRRIGATION	0	0.00	0.00	0.00	0.00	

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HAWAII WATER PLAN  
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INVENTORY OF PROPOSED STATE PROJECTS

PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
ISLAND OF LANAI											
DEPARTMENT OF TRANSPORTATION LANAI AIRPORT MASTER PLAN	CENTRAL	AIRPORTS DIVISION LEEWARD	50102	GROUNDWATER	COMBINED	0	0.00	24.00	0.14	0.32	
DEPARTMENT OF TRANSPORTATION KAUNALAPAU HARBOR - 2010 MASTER PLAN	KAA	HARBORS DIVISION KAUNALAPAU	50302	GROUNDWATER	COMBINED	0	0.00	3.40	0.01	0.02	LAND AREA APPROXIMATE

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PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
** ISLAND OF MAUI											
* DEPARTMENT OF BUDGET & FINANCE											
HOUSING FINANCE & DEVELOPMENT CORP											
WAIHEHU STATE LAND A PHASE II	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	100	0.06	14.84	0.04	0.00	(WAIHEHU TERRACE, INCR. A, PHASE II) TMK: 3-3-01:10
WAIHEHU HANDICAPPED A PHASE III	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	21	0.01	0.00	0.00	0.00	
WAIHEHU ELDERLY A PHASE III	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	42	0.02	3.40	0.01	0.00	(WAIHEHU TERRACE, INCR. A, PHASE III) TMK: 3-3-01:10
LAHAINA MASTER PLAN	LAHAINA	LAUNIPOKO	60204	GROUNDWATER	POTABLE	3900	2.34	1122.00	3.37	0.00	TMK: 4-5-21:3
WAIHEHU TERRACE, INCR. C, PHASE V	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	254	0.15	46.00	0.14	0.00	TMK: 3-3-01:10
HONOKOWAI RENTAL	LAHAINA	HONOKOWAI	60203	GROUNDWATER	POTABLE	164	0.11	12.00	0.04	0.00	TMK: 4-4-02:POR. 37 TMK: 4-4-01:POR. 15, 16, 18, 19, 21, 22, 26 & 94
WAIHEHU FAMILY RENTAL C PHASE VI	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	60	0.04	5.50	0.02	0.00	(WAIHEHU TERRACE, INCR. C, PHASE VI) TMK: 3-3-01:10
WAIHEHU TERRACE, INCR. B, PHASE IV	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	237	0.14	46.20	0.14	0.00	TMK: 3-3-01:10
NIUMALU, HANA, MAUI			0	GROUNDWATER	POTABLE	62	0.04	15.00	0.04	0.00	HANA RANCH CO. DEEPWELL AT KAWAIPAPA
* DEPARTMENT OF EDUCATION											
KAMEHANEHA III (ANNEX)	CENTRAL	KAHULUI	60301	GROUNDWATER	POTABLE	1000	0.06	0.00	0.00	0.00	
MAUI-WAENA INTERMEDIATE SCHOOL			0		POTABLE	1500	0.09	0.00	0.00	0.00	
UPCOUNTRY HIGH SCHOOL	CENTRAL	MAKAWAO	60303		POTABLE	2000	0.12	0.00	0.00	0.00	
KINEI II ELEMENTARY SCHOOL	CENTRAL	KAMAOLE	60304	GROUNDWATER	POTABLE	1000	0.06	0.00	0.00	0.00	
LAHAINALUNA HIGH SCHOOL	LAHAINA	LAUNIPOKO	60204	SURFACE	POTABLE	800	0.05	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF HAWAIIAN HOME LANDS											
KULA - RESIDENCE LOTS WATOHULI 1, 2	CENTRAL	KAMAOLE	60304	SURFACE	POTABLE	308	0.18	0.00	0.00	0.00	
KAHIKIHUI - LIVESTOCK	KAHIKIHUI	LUALAILUA	60603	GROUNDWATER	LIVESTOCK	0	0.00	0.00	0.00	0.01	MAUI FACTORS STOCKWATER WELL - 1760 PPM SALINE CAPACITY NOT KNOWN
WAIHEHU - RESIDENCE LOTS	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	40	0.02	12.50	0.04	0.00	TMK 3-2-13:8
PAUKUKALO - RESIDENCE LOTS UNIT 4	WAILUKU	IAO	60102		POTABLE	14	0.01	0.00	0.00	0.00	
KULA - KEOEKA AG LOTS	CENTRAL	KAMAOLE	60304	SURFACE	COMBINED	68	0.04	0.00	0.00	0.00	
PAUKUKALO - RESIDENCE LOTS UNIT 3 PH 3	WAILUKU	IAO	60102	GROUNDWATER	POTABLE	33	0.02	0.00	0.00	0.00	
KAHIKIHUI - HOMESTEAD	KAHIKIHUI	LUALAILUA	60301		POTABLE	12	0.01	0.00	0.00	7200.00	TMK 1-9-01
* DEPARTMENT OF LAND & NATURAL RESOURCES											
DIVISION OF STATE PARKS											
KAUNAHANA STATE PARK	KOOLAU	WAIKAMOI	60403	SURFACE	POTABLE	300	0.02	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF TRANSPORTATION											
AIRPORTS DIVISION											
KAHULUI AIRPORT ACCESS ROAD	CENTRAL	KAHULUI	60301		IRRIGATION	0	0.00	0.00	0.00	0.00	
KAHULUI AIRPORT MASTER PLAN	CENTRAL	KAHULUI	60301	GROUNDWATER	COMBINED	0	0.00	1270.00	0.09	0.29	
HANA AIRPORT MASTER PLAN	HANA	KAWAIPAPA	60502		COMBINED	0	0.00	1.00	0.00	0.01	
* DEPARTMENT OF TRANSPORTATION											
HARBORS DIVISION											
KAHULUI HARBOR - 2010 MASTER PLAN	CENTRAL	KAHULUI	60301	GROUNDWATER	COMBINED	0	0.00	23.70	0.04	0.09	
MAALAEA BOAT HARBOR	WAILUKU	WAIKAPU	60101	GROUNDWATER	POTABLE	251	0.08	0.00	0.00	0.08	

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PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
<b>** ISLAND OF MOLOKAI</b>											
<b>* DEPARTMENT OF HAWAIIAN HOME LANDS</b>											
HOOLEHUA - RESIDENCE LOTS UNIT 1	CENTRAL	HOOLEHUA	40201	GROUNDWATER	POTABLE	21	0.01	0.00	0.00	0.00	
KALANAULA - RESIDENCE LOTS	CENTRAL	KUALAPUU	40203	GROUNDWATER	POTABLE	128	0.08	0.00	0.00	0.00	
KAPAAKEA - RESIDENCE LOTS ONE ALII	SOUTHEAST	KAMIILOOA	40301	GROUNDWATER	POTABLE	4	0.00	0.00	0.00	0.00	
HOOLEHUA - RESIDENCE LOTS UNIT 2 & 3	CENTRAL	HOOLEHUA	40201	GROUNDWATER	POTABLE	63	0.04	0.00	0.00	0.00	
HOOLEHUA - FARM LOTS SCATTERED	CENTRAL	HOOLEHUA	40201	GROUNDWATER	COMBINED	24	0.01	0.00	0.00	0.00	
HOOLEHUA - FARM LOTS AIRPORT AREA	CENTRAL	MAUNAWAINUI	40202	GROUNDWATER	COMBINED	60	0.04	0.00	0.00	0.00	
HOOLEHUA - FARM LOTS NEW AREAS	CENTRAL	HOOLEHUA	40201	GROUNDWATER	COMBINED	39	0.02	0.00	0.00	0.00	
HOOLEHUA - PASTURE LOTS EXISTING	CENTRAL	HOOLEHUA	40201	GROUNDWATER	COMBINED	25	0.01	0.00	0.00	0.00	
HOOLEHUA - PASTURE LOTS NEW AREAS	CENTRAL	HOOLEHUA	40201	GROUNDWATER	COMBINED	20	0.01	0.00	0.00	0.00	
KALANAULA - RESIDENCE LOTS NEW AREAS	CENTRAL	KUALAPUU	40203	GROUNDWATER	POTABLE	90	0.05	0.00	0.00	0.00	
KALANAULA - FARM LOTS	CENTRAL	KUALAPUU	40203	GROUNDWATER	COMBINED	65	0.04	0.00	0.00	0.00	
KALANAULA - PASTURE LOTS UPPER AREAS	CENTRAL	KUALAPUU	40203	GROUNDWATER	COMBINED	10	0.01	0.00	0.00	0.00	
KAPAAKEA - RESIDENCE LOTS	SOUTHEAST	KAMIILOOA	40301	GROUNDWATER	POTABLE	50	0.03	0.00	0.00	0.00	
KAPAAKEA - FARM LOTS	SOUTHEAST	KAMIILOOA	40301	GROUNDWATER	COMBINED	25	0.01	0.00	0.00	0.00	
KAPAAKEA - PASTURE LOTS	SOUTHEAST	KAMIILOOA	40301	GROUNDWATER	COMBINED	10	0.01	0.00	0.00	0.00	
HOOLEHUA	CENTRAL	HOOLEHUA	40201	GROUNDWATER	POTABLE	1700	0.42	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
<b>* DEPARTMENT OF LAND &amp; NATURAL RESOURCES</b>											
WAILALA STATE PARK	CENTRAL	KUALAPUU	40203	GROUNDWATER	POTABLE	500	0.03	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
<b>* DEPARTMENT OF LAND &amp; NATURAL RESOURCES</b>											
MOLOKAI IRRIGATION SYSTEM		DIVISION OF WATER AND LAND DEVELOPMENT	0	COMBINED	IRRIGATION	0	0.00	4410.00	0.00	3.40	EXISTING STATE OPERATED SYSTEM
<b>* DEPARTMENT OF TRANSPORTATION</b>											
MOLOKAI AIRPORT MASTER PLAN	CENTRAL	AIRPORTS DIVISION MAUNAWAINUI	40202	GROUNDWATER	COMBINED	0	0.00	207.00	0.00	0.02	
<b>* DEPARTMENT OF TRANSPORTATION</b>											
KAUNAKAKAI HARBOR - 2010 MASTER PLAN	SOUTHEAST	HARBORS DIVISION KAMIILOOA	40301	GROUNDWATER	COMBINED	0	0.00	4.40	0.00	0.01	

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STATE PROJECTS PLAN  
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PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
** ISLAND OF OAHU											
* DEPARTMENT OF AGRICULTURE											
WAIANAE AGRICULTURAL PARK	WAIANAE	WAIANAE	30303	GROUNDWATER	COMBINED	17	0.01	150.00	0.75	0.38	
KAHUKU AGRICULTURAL PARK	WINDWARD	KOOLAULO	30801	GROUNDWATER	COMBINED	25	0.01	780.00	3.90	2.00	PROPOSED STATE OPERATED SYSTEM
WAIMANALO AGRICULTURAL PARK	WINDWARD	WAIMANALO	30601	SURFACE WATER	IRRIGATION	20	0.01	198.00	0.98	0.00	WAIMANALO IRRIGATION SYSTEM & HONOLULU BWS
LIVESTOCK AGRICULTURAL PARK	PEARL HARBOR	WAIPAHU	30203	GROUNDWATER	COMBINED	0	0.00	600.00	3.00	3.00	
* DEPARTMENT OF BUDGET & FINANCE											
HOUSING FINANCE & DEVELOPMENT CORP											
WAIANAE	WINDWARD	KOOLAUPOKO	30603	GROUNDWATER	COMBINED	123	0.08	0.00	0.00	0.00	
MAKAHA MEADOWS EAST II	WAIANAE	MAKAHA	30304	GROUNDWATER	POTABLE	4	0.00	0.12	0.00	0.00	TMK: 8-4-26
KAPUNA II	HONOLULU	KALINI	30103	GROUNDWATER	POTABLE	206	0.10	1.30	0.00	0.00	TMK: 1-8-07:67
KAPOLEI VILLAGE	PEARL HARBOR	EMA	30204	GROUNDWATER	COMBINED	5000	2.50	830.00	2.49	0.00	TMK: 9-1-16:23 & POR. 25
HALONA STREET	HONOLULU	KALINI	30103	GROUNDWATER	POTABLE	2	0.00	0.00	0.00	0.00	
LEILEHUA VILLAGE	CENTRAL	MAHIANA	30501	GROUNDWATER	POTABLE	43	0.02	18.88	0.04	0.00	TMK: 7-4-12:10 & 12
CROWN	PEARL HARBOR	WAIPAHU	30203	GROUNDWATER	POTABLE	60	0.03	7.30	0.02	0.00	TMK: 9-4-17:1
MAHIANA ELDERLY I	CENTRAL	MAHIANA	30501	GROUNDWATER	POTABLE	60	0.03	18.88	0.04	0.00	TMK: 7-4-12:10 & 12 (PORTION OF 16.68 ACRES)
KEYSTONE	WAIANAE	MAHAKULI	30301	GROUNDWATER	POTABLE	400	0.20	52.00	0.13	0.00	TMK: 8-7-07:4 TMK: 8-7-33:14 & 19
CROWN ELDERLY	PEARL HARBOR	WAIPAHU	30203	GROUNDWATER	POTABLE	160	0.08	4.50	0.01	0.00	TMK: 9-4-17:1
MAHIANA ELDERLY II	CENTRAL	MAHIANA	30501	GROUNDWATER	POTABLE	60	0.03	18.88	0.04	0.00	TMK: 7-4-12:10 & 12 (PORTION OF 16.69 ACRES)
KAPOLEI VILLAGE RENTALS	PEARL HARBOR	EMA	30204	GROUNDWATER	POTABLE	428	0.21	0.00	0.00	0.00	
KAKAAKO - FAMILY RENTAL	HONOLULU	NUUANU	30102	GROUNDWATER	POTABLE	225	0.07	0.00	0.00	0.00	
KAPOLEI VILLAGE ELDERLY	PEARL HARBOR	EMA	30204	GROUNDWATER	POTABLE	438	0.22	0.00	0.00	0.00	
HALE MOHALU	PEARL HARBOR	WAIMALU	30201	GROUNDWATER	POTABLE	140	0.07	8.00	0.01	0.00	TMK: 9-7-19:35
KAKAAKO - ELDERLY	HONOLULU	NUUANU	30102	GROUNDWATER	POTABLE	280	0.08	0.00	0.00	0.00	
WHITMORE CIRCLE	CENTRAL	MAHIANA	30501	GROUNDWATER	POTABLE	44	0.03	2.09	0.01	0.00	
* DEPARTMENT OF BUSINESS & ECONOMIC DEVELOPMENT											
ALOHA TOWER DEVELOPMENT											
	HONOLULU	KALINI	30103	GROUNDWATER	COMBINED	0	0.00	0.00	0.00	0.00	
* DEPARTMENT OF BUSINESS & ECONOMIC DEVELOPMENT											
KAKAAKO REDEVELOPMENT PROJECT											
	HONOLULU	NUUANU	30102	GROUNDWATER	COMBINED	0	0.00	0.00	0.00	0.00	
* DEPARTMENT OF CORRECTIONS											
WAIANA CORRECTIONAL FACILITY											
	PEARL HARBOR	WAIANA	30202	SURFACE	POTABLE	200	0.05	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF EDUCATION											
KAHUKU ELEMENTARY SCHOOL	WINDWARD	KOOLAULO	30601	GROUNDWATER	POTABLE	1000	0.08	0.00	0.00	0.00	
MOEA ELEMENTARY SCHOOL			0	POTABLE	POTABLE	1000	0.08	0.00	0.00	0.00	
WAIANAE III ELEMENTARY SCHOOL	WAIANAE	WAIANAE	30303	GROUNDWATER	POTABLE	1000	0.08	0.00	0.00	0.00	
EMA II ELEMENTARY SCHOOL	PEARL HARBOR	WAIPAHU	30203	GROUNDWATER	POTABLE	1000	0.08	0.00	0.00	0.00	
WILILANI IV ELEMENTARY SCHOOL	PEARL HARBOR	WAIPAHU	30203	GROUNDWATER	POTABLE	1000	0.08	0.00	0.00	0.00	
WILILANI V ELEMENTARY SCHOOL	PEARL HARBOR	WAIPAHU	30203	GROUNDWATER	POTABLE	1000	0.08	0.00	0.00	0.00	
WEST LOCH ELEMENTARY SCHOOL	PEARL HARBOR	WAIPAHU	30203	GROUNDWATER	POTABLE	1000	0.08	0.00	0.00	0.00	



HAWAII WATER PLAN  
STATE PROJECTS PLAN  
INVENTORY OF PROPOSED STATE PROJECTS  
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PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
KAPOLEI ELEMENTARY SCHOOL	PEARL HARBOR	EWA	30204	GROUNDWATER	POTABLE	1000	0.08	0.00	0.00	0.00	
KAPOLEI INTERMEDIATE SCHOOL	PEARL HARBOR	EWA	30204	GROUNDWATER	POTABLE	1500	0.09	0.00	0.00	0.00	
KAPOLEI HIGH SCHOOL	PEARL HARBOR	EWA	30204	GROUNDWATER	POTABLE	2000	0.12	0.00	0.00	0.00	
* DEPARTMENT OF HAWAIIAN HOME LANDS											
WAIANAE - RESIDENCE LOTS UNIT 2A-2,3	WAIANAE	WAIANAE	30303	GROUNDWATER	POTABLE	121	0.08	0.00	0.00	0.00	
MANAKULI - RESIDENCE LOTS SERIES 8	WAIANAE	MANAKULI	30301	GROUNDWATER	POTABLE	38	0.02	0.00	0.00	0.00	
MANAKULI - RESIDENCE LOTS SERIES 5-3	WAIANAE	MANAKULI	30301	GROUNDWATER	POTABLE	53	0.03	0.00	0.00	0.00	
WAINAMALO - RESIDENCE LOTS UNIT 8	WINDWARD	WAINAMALO	30804	GROUNDWATER	POTABLE	58	0.03	0.00	0.00	0.00	
MANAKULI - RESIDENCE LOTS SERIES 7-9	WAIANAE	MANAKULI	30301	GROUNDWATER	POTABLE	188	0.08	0.00	0.00	0.00	
MANAKULI - RESIDENCE LOTS SCATTERED	WAIANAE	MANAKULI	30301	GROUNDWATER	POTABLE	14	0.01	0.00	0.00	0.00	
WAIANAE - RESIDENCE LOTS FREITAS DAIRY	WAIANAE	WAIANAE	30303	GROUNDWATER	POTABLE	135	0.07	0.00	0.00	0.00	
WAIANAE - FARM LOTS CARLOS DAIRY	WAIANAE	WAIANAE	30303	GROUNDWATER	COMBINED	8	0.00	0.00	0.00	0.00	
WAINAMALO - RESIDENCE LOTS ALA KOA ST	WINDWARD	WAINAMALO	30804	GROUNDWATER	POTABLE	9	0.00	0.00	0.00	0.00	
WAINAMALO - RESIDENCE LOTS UNIT 10-13	WINDWARD	WAINAMALO	30804	GROUNDWATER	POTABLE	280	0.14	0.00	0.00	0.00	
WAINAMALO - RESIDENCE LOTS UNIT 9	WINDWARD	WAINAMALO	30804	GROUNDWATER	POTABLE	50	0.03	0.00	0.00	0.00	
LUALUALEI - PAHEEHEE RIDGE	WAIANAE	LUALUALEI	30302	GROUNDWATER	POTABLE	62	0.03	0.00	0.00	0.00	
LUALUALEI - RESIDENCE LOTS MAILILI	WAIANAE	LUALUALEI	30302	GROUNDWATER	POTABLE	70	0.04	0.00	0.00	0.00	
LUALUALEI - RESERVOIR SITE	WAIANAE	LUALUALEI	30302	GROUNDWATER	POTABLE	32	0.02	0.00	0.00	0.00	
* DEPARTMENT OF HEALTH											
WAINANO TRAINING SCHOOL	PEARL HARBOR	WAINALU	30201	GROUNDWATER	POTABLE	235	0.08	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
HAWAII STATE HOSPITAL	WINDWARD	KOOLAUPOKO	30803	GROUNDWATER	POTABLE	2000	0.50	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF LAND & NATURAL RESOURCES											
KAHANA STATE PARK	WINDWARD	DIVISION OF STATE PARKS KAHANA	30802	GROUNDWATER	POTABLE	130	0.01	0.00	0.00	0.00	EXISTING PUBLIC WATER SYSTEM
* DEPARTMENT OF LAND & NATURAL RESOURCES											
WAINAMALO IRRIGATION SYSTEM	WINDWARD	DIVISION OF WATER AND LAND DEVELOPMENT WAINAMALO	30804	COMBINED	IRRIGATION	0	0.00	974.00	0.00	0.18	EXISTING STATE OPERATED SYSTEM
* DEPARTMENT OF TRANSPORTATION											
DILLINGHAM FIELD - MOKULEIA	NORTH	AIRPORTS DIVISION MOKULEIA	30401	GROUNDWATER	POTABLE	1800	0.11	0.00	0.00	0.11	EXISTING PUBLIC WATER SYSTEM
HONOLULU INTERNATIONAL AIRPORT	HONOLULU	MOANALUA	30104	GROUNDWATER	COMBINED	0	0.00	4500.00	0.00	3.00	INCLUDES 0.5 MGD FOR HICKAM AFB
* DEPARTMENT OF TRANSPORTATION											
HONOLULU HARBOR - 2010 MASTER PLAN	HONOLULU	HARBORS DIVISION KALIHI	30103	GROUNDWATER	COMBINED	0	0.00	288.00	0.00	0.31	
BARBERS POINT HARBOR	PEARL HARBOR	EWA	30204	GROUNDWATER	COMBINED	0	0.00	144.30	0.00	0.25	HONOLULU BWS HAS ALLOCATED 127,000 GPD FOR PROJECT BASED ON AREA
KEEHI LAGOON DEVELOPMENT	HONOLULU	MOANALUA	30104	GROUNDWATER	COMBINED	0	0.00	0.00	0.00	1.08	ULTIMATE DEMAND BASED ON UTILITY MASTER PLAN FOR KEEHI LAGOON RECREATION DEVELOPMENT PLAN
* DEPARTMENT OF TRANSPORTATION											
H-3 WINDWARD HIGHWAY	WINDWARD	HIGHWAYS DIVISION KOOLAUPOKO	30803		IRRIGATION	0	0.00	0.00	0.00	0.00	
H-3 NORTH HALAWA VALLEY HWY UNIT I, PH I	PEARL HARBOR	WAINALU	30201		IRRIGATION	0	0.00	0.00	0.00	0.00	
H-3 NORTH HALAWA VALLEY HWY UNIT I, PH II	PEARL HARBOR	WAINALU	30201		IRRIGATION	0	0.00	0.00	0.00	0.00	

HAWAII WATER PLAN  
STATE PROJECTS PLAN  
INVENTORY OF PROPOSED STATE PROJECTS

PROJECT NAME	HYDROLOGIC SECTOR	AQUIFER SYSTEM	CODE	SOURCE TYPE	PRIMARY USE	NO. OF UNITS	EST DMD BY UNIT (MGD)	PROJECT AREA (AC)	EST DMD BY AREA (MGD)	AGENCY EST DMD (MGD)	REMARKS
H-3 NORTH HALAWA VALLEY HWY UNIT II	PEARL HARBOR	WAIMALU	30201		IRRIGATION	0	0.00	0.00	0.00	0.00	
H-3 KANEONE INTERCHANGE	WINDWARD	KOOLAPOKO	30803		IRRIGATION	0	0.00	0.00	0.00	0.00	
KALANIANA'OLE HWY - PH I	HONOLULU	MAIALAE	30105	GROUNDWATER	IRRIGATION	0	0.00	8.70	0.03	0.00	
KAMEHAMEHA HWY NEED JCT HALEIWA PH I	NORTH	MAIALAE	30402	GROUNDWATER	IRRIGATION	0	0.00	6.50	0.03	0.00	
KALANIANA'OLE HWY PH II	HONOLULU	MAIALAE	30105	GROUNDWATER	IRRIGATION	0	0.00	8.70	0.03	0.00	
FORT WEAVER ROAD UNIT 2 PH II	PEARL HARBOR	MAIPAHU	30203		IRRIGATION	0	0.00	0.00	0.00	0.00	
KALANIANA'OLE HWY PH III	HONOLULU	MAIALAE	30105	GROUNDWATER	IRRIGATION	0	0.00	8.80	0.03	0.00	
KAMEHAMEHA HWY NEED JCT HALEIWA PH II	NORTH	MAIALAE	30402	GROUNDWATER	IRRIGATION	0	0.00	6.50	0.03	0.00	
FORT WEAVER ROAD LANDSCAPING	PEARL HARBOR	MAIPAHU	30203	GROUNDWATER	IRRIGATION	0	0.00	0.00	0.00	0.00	
WINTZ HWY BEAUTIFICATION	HONOLULU	MAIALAE	30104	GROUNDWATER	IRRIGATION	0	0.00	0.00	0.00	0.00	

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## **APPENDIX E**

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### **LISTING OF PROJECTED WATER NEEDS BY STATE AGENCIES**

## APPENDIX E

LISTING OF PROTECTED WATER NEEDS BY STATE AGENCIES

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS

PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
<b>** DEPARTMENT AGRICULTURE</b>							
KAHUKU AGRICULTURAL PARK	OAHU	WINDWARD	KOOLAULOA	30601	0.00	2.00	2.00
KE-AHOLE AGRICULTURAL PARK PHASE I	HAWAII	HUALALAI	KEAUHOU	80901	0.00	0.33	0.33
KE-AHOLE AGRICULTURAL PARK PHASE II	HAWAII	HUALALAI	KEAUHOU	80901	0.00	0.57	0.57
LIVESTOCK AGRICULTURAL PARK	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	3.00	3.00
MOLOAA AGRICULTURAL PARK	KAUAI	LIHUE	ANAHOLA	20104	0.00	3.80	3.80
PAHOA AGRICULTURAL PARK PHASE I	HAWAII	KILAUEA	PAHOA	80801	0.00	2.05	2.05
PAHOA AGRICULTURAL PARK PHASE II	HAWAII	KILAUEA	PAHOA	80801	0.00	0.94	0.94
PANAWEA AGRICULTURAL PARK	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	2.30	2.30
WAIANAE AGRICULTURAL PARK	OAHU	WAIANAE	WAIANAE	30303	0.00	0.38	0.38
WAILUA AGRICULTURAL PARK	KAUAI	LIHUE	WAILUA	20103	0.00	1.00	1.00
WAIMANALO AGRICULTURAL PARK	OAHU	WINDWARD	WAIMANALO	30601	0.00	0.98	0.98
WAIMEA AGRICULTURAL PARK - LALAMILO ADD	HAWAII	WEST MAUNA KEA	WAIMEA	80301	0.00	0.81	0.81
<b>* Subsubtotal *</b>					0.00	18.16	18.16
<b>** Subtotal **</b>					0.00	18.16	18.16

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS  
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PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
** DEPARTMENT BUDGET & FINANCE							
* HOUSING FINANCE & DEVELOPMENT CORP							
AMFAC PARCEL - HANAMAULU	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.21	0.21
ARC OF HAWAII - PROJECT #10 (LIHUE)	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.00	0.00
CROWN	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.03	0.03
CROWN ELDERLY	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.08	0.08
HALE MOHALU	OAHU	PEARL HARBOR	WAIMALU	30201	0.00	0.07	0.07
HALE NAMA OLAMA	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.04	0.04
HALONA STREET	OAHU	HONOLULU	KALIHI	30103	0.00	0.00	0.00
HANAPEPE STATE LAND - HANAPEPE HEIGHTS	KAUAI	WAIMEA	MAKAWELI	20303	0.00	0.28	0.28
HAWAII COMMUNITY COLLEGE IX ('90-'91)	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.00	0.00
HAWAII COMMUNITY COLLEGE VIII ('89-'90)	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.00	0.00
HAWAII COMMUNITY COLLEGE X ('91-'92)	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.00	0.00
HONOKOWAI RENTAL	MAUI	LAHAINA	HONOKOWAI	60203	0.00	0.11	0.11
KAKAAKO - ELDERLY	OAHU	HONOLULU	NUUANU	30102	0.00	0.08	0.08
KAKAAKO - FAMILY RENTAL	OAHU	HONOLULU	NUUANU	30102	0.00	0.07	0.07
KAPOLEI VILLAGE	OAHU	PEARL HARBOR	EWA	30204	0.00	2.50	2.50
KAPOLEI VILLAGE ELDERLY	OAHU	PEARL HARBOR	EWA	30204	0.00	0.22	0.22
KAPOLEI VILLAGE RENTALS	OAHU	PEARL HARBOR	EWA	30204	0.00	0.21	0.21
KAPUNA II	OAHU	HONOLULU	KALIHI	30103	0.00	0.10	0.10
KAUAI ELDERLY	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.03	0.03
KAUAI RENTAL	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.05	0.05
KEALAKEHE MASTER PLAN	HAWAII	HUALALAI	KEAUNOHU	80901	0.00	4.62	4.62
KEALAKEHE PLANNED COMMUNITY - PHASE I	HAWAII	HUALALAI	KEAUNOHU	80901	0.00	0.27	0.27
KEYSTONE	OAHU	WAIANAE	NANAKULI	30301	0.00	0.20	0.20
LA'ILANI	HAWAII	HUALALAI	KEAUNOHU	80901	0.00	0.08	0.08
LAHAINA MASTER PLAN	MAUI	LAHAINA	LAUNIPOKO	60204	0.00	3.37	3.37
LALAMILO/LOWER	HAWAII	WEST MAUNA KEA	WAIMEA	80301	0.00	0.04	0.04
LALAMILO/UPPER	HAWAII	WEST MAUNA KEA	WAIMEA	80301	0.00	0.30	0.30

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS  
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PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
LEILEHUA VILLAGE	OAHU	CENTRAL	WAHIAWA	30501	0.00	0.04	0.04
MAKAHA MEADOWS EAST II	OAHU	WAIANAE	MAKAHA	30304	0.00	0.00	0.00
MILOLII SELF-HELP PROGRAM	HAWAII	SOUTHWEST MAUNA LOA	KAAPUNA	80602	0.00	0.15	0.15
MOLOKOA PROJECT	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.59	0.59
NIUMALU, HANA, MAUI	MAUI	HANA	KAWAIPAPA	60502	0.00	0.04	0.04
NOELANI II - PUBLIC HOUSING	HAWAII	KOHALA	MAHUKONA	80103	0.00	0.01	0.01
PIIHONUA MEADOWS	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.03	0.03
PUNI	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.01	0.01
WAHIAWA ELDERLY I	OAHU	CENTRAL	WAHIAWA	30501	0.00	0.04	0.04
WAHIAWA ELDERLY II	OAHU	CENTRAL	WAHIAWA	30501	0.00	0.04	0.04
WAIHAOLE	OAHU	WINDWARD	KOOLAUPOKO	30603	0.00	0.06	0.06
WAIHEHU ELDERLY A PHASE III	MAUI	WAILUKU	IAO	60102	0.00	0.02	0.02
WAIHEHU FAMILY RENTAL C PHASE VI	MAUI	WAILUKU	IAO	60102	0.00	0.04	0.04
WAIHEHU HANDICAPPED A PHASE III	MAUI	WAILUKU	IAO	60102	0.00	0.01	0.01
WAIHEHU STATE LAND A PHASE II	MAUI	WAILUKU	IAO	60102	0.00	0.06	0.06
WAIHEHU TERRACE, INCR. B, PHASE IV	MAUI	WAILUKU	IAO	60102	0.00	0.14	0.14
WAIHEHU TERRACE, INCR. C, PHASE V	MAUI	WAILUKU	IAO	60102	0.00	0.15	0.15
WAILUA MAKAI	KAUAI	LIHUE	WAILUA	20103	0.00	0.13	0.13
WAILUA MAUKA	KAUAI	LIHUE	WAILUA	20103	0.00	0.96	0.96
WELIWELI PROJECT	KAUAI	LIHUE	KOLOA	20101	0.00	0.20	0.20
WHITMORE CIRCLE	OAHU	CENTRAL	WAHIAWA	30501	0.00	0.03	0.03
* Subsubtotal *					0.00	15.69	15.69
** Subtotal **					0.00	15.69	15.69

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS  
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PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
<b>** DEPARTMENT BUSINESS &amp; ECONOMIC DEVELOPMENT</b>							
NATURAL ENERGY LABORATORY OF HAWAII	HAWAII	HUALALAI	KEAUHOU	80901	0.00	0.12	0.12
* Subsubtotal *							
ALOHA TOWER DEVELOPMENT CORP					0.00	0.12	0.12
ALOHA TOWER DEVELOPMENT	OAHU	HONOLULU	KALIHI	30103	0.00	0.00	0.00
* Subsubtotal *							
BUSINESS DEVELOPMENT & MARKETING	OFFICE OF SPACE INDUSTRY						
SPACE LAUNCH FACILITY - PALIMA POINT	HAWAII	KILAUEA	KEAIIWA	80804	0.00	0.16	0.16
* Subsubtotal *							
HAWAII COMMUNITY DEVELOPMENT AUTHORITY					0.00	0.16	0.16
KAKAOKO REDEVELOPMENT PROJECT	OAHU	HONOLULU	NUUANU	30102	0.00	0.00	0.00
* Subsubtotal *							
HIGH TECHNOLOGY DEVELOPMENT CORP					0.00	0.00	0.00
HAWAII OCEAN SCIENCE & TECHNOLOGY PARK	HAWAII	HUALALAI	KEAUHOU	80901	0.00	0.39	0.39
* Subsubtotal *					0.00	0.39	0.39
** Subtotal **					0.00	0.67	0.67

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS

PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
<b>** DEPARTMENT EDUCATION</b>							
EWA II ELEMENTARY SCHOOL	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.06	0.06
HANAMAULU/WAILUA ELEMENTARY SCHOOL	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.06	0.06
HOAEAE ELEMENTARY SCHOOL	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.06	0.06
KAHUKU ELEMENTARY SCHOOL	OAHU	WINDWARD	KOOLAULO	30601	0.00	0.06	0.06
KAMEHAMEHA III (ANNEX)	MAUI	CENTRAL	KAHULUI	60301	0.00	0.06	0.06
KAPAA II ELEMENTARY SCHOOL	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.06	0.06
KAPAA INTERMEDIATE SCHOOL	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.09	0.09
KAPOLEI ELEMENTARY SCHOOL	OAHU	PEARL HARBOR	EWA	30204	0.00	0.06	0.06
KAPOLEI HIGH SCHOOL	OAHU	PEARL HARBOR	EWA	30204	0.00	0.12	0.12
KAPOLEI INTERMEDIATE SCHOOL	OAHU	PEARL HARBOR	EWA	30204	0.00	0.09	0.09
KIHEI II ELEMENTARY SCHOOL	MAUI	CENTRAL	KAMAOLE	60304	0.00	0.06	0.06
MAUI-WAENA INTERMEDIATE SCHOOL	MAUI	WAILUKU	IAO	60102	0.00	0.09	0.09
MILILANI IV ELEMENTARY SCHOOL	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.06	0.06
MILILANI V ELEMENTARY SCHOOL	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.06	0.06
NEW KEEAU ELEMENTARY SCHOOL	HAWAII	NORTHEAST MAUNA LOA	KEAAU	80402	0.00	0.06	0.06
NEW KONAWAENA ELEMENTARY SCHOOL	HAWAII	SOUTHWEST MAUNA LOA	KEALAKEKUA	80603	0.00	0.06	0.06
NEW PAHOA ELEMENTARY SCHOOL	HAWAII	KILAUEA	PAHOA	80801	0.00	0.06	0.06
UPCOUNTRY HIGH SCHOOL	MAUI	CENTRAL	MAKAWAO	60303	0.00	0.12	0.12
WAIANAE III ELEMENTARY SCHOOL	OAHU	WAIANAE	WAIANAE	30303	0.00	0.06	0.06
WAIKOLOA/WAIMEA ELEMENTARY SCHOOL	HAWAII	WEST MAUNA KEA	WAIIMEA	80301	0.00	0.06	0.06
WEST HAWAII ELEMENTARY SCHOOL	HAWAII	HUALALAI	KEAUMOU	80901	0.00	0.06	0.06
WEST LOCH ELEMENTARY SCHOOL	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.06	0.06
<b>* Subsubtotal *</b>					0.00	1.53	1.53
<b>** Subtotal **</b>					0.00	1.53	1.53

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS

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PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
<b>** DEPARTMENT HAWAIIAN HOME LANDS</b>							
ANAHOLA - FARM LOTS UNIT 1A INCREMENT 2	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.00	0.00
ANAHOLA - RESIDENCE LOTS (VILLAGE)	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.01	0.01
ANAHOLA - RESIDENCE LOTS BAYVIEW	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.03	0.03
ANAHOLA - RESIDENCE LOTS J & K	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.01	0.01
ANAHOLA - RESIDENCE LOTS M	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.02	0.02
ANAHOLA - RESIDENCE LOTS UNIT 4	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.04	0.04
ANAHOLA - RESIDENCE LOTS UNIT 5	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.02	0.02
ANAHOLA - RESIDENCE LOTS UNIT3	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.02	0.02
HOOLEHUA - FARM LOTS AIRPORT AREA	MOLOKAI	CENTRAL	MAUNAWAINUI	40202	0.00	0.04	0.04
HOOLEHUA - FARM LOTS NEW AREAS	MOLOKAI	CENTRAL	HOOLEHUA	40201	0.00	0.02	0.02
HOOLEHUA - FARM LOTS SCATTERED	MOLOKAI	CENTRAL	HOOLEHUA	40201	0.00	0.01	0.01
HOOLEHUA - PASTURE LOTS EXISTING	MOLOKAI	CENTRAL	HOOLEHUA	40201	0.00	0.01	0.01
HOOLEHUA - PASTURE LOTS NEW AREAS	MOLOKAI	CENTRAL	HOOLEHUA	40201	0.00	0.01	0.01
HOOLEHUA - RESIDENCE LOTS UNIT 1	MOLOKAI	CENTRAL	HOOLEHUA	40201	0.00	0.01	0.01
HOOLEHUA - RESIDENCE LOTS UNIT 2 & 3	MOLOKAI	CENTRAL	HOOLEHUA	40201	0.00	0.04	0.04
HUMUULA - PASTURE LOTS	HAWAII	EAST MAUNA KEA	HAKALAU	80203	0.00	0.00	0.00
KAHIKINUI - HOMESTEAD	MAUI	KAHIKINUI	LUALAILUA	80803	0.00	0.01	0.01
KALAMAULA - FARM LOTS	MOLOKAI	CENTRAL	KUALAPUU	40203	0.00	0.04	0.04
KALAMAULA - PASTURE LOTS UPPER AREAS	MOLOKAI	CENTRAL	KUALAPUU	40203	0.00	0.01	0.01
KALAMAULA - RESIDENCE LOTS	MOLOKAI	CENTRAL	KUALAPUU	40203	0.00	0.08	0.08
KALAMAULA - RESIDENCE LOTS NEW AREAS	MOLOKAI	CENTRAL	KUALAPUU	40203	0.00	0.05	0.05
KAMAOA - PASTURE LOTS	HAWAII	SOUTHEAST MAUNA LOA	KALAE	80504	0.00	0.01	0.01
KAMAOA - PUUEO FARM LOTS	HAWAII	SOUTHEAST MAUNA LOA	KALAE	80504	0.00	0.01	0.01
KAPAAKEA - FARM LOTS	MOLOKAI	SOUTHEAST	KAMILOLOA	40301	0.00	0.01	0.01
KAPAAKEA - PASTURE LOTS	MOLOKAI	SOUTHEAST	KAMILOLOA	40301	0.00	0.01	0.01
KAPAAKEA - RESIDENCE LOTS	MOLOKAI	SOUTHEAST	KAMILOLOA	40301	0.00	0.03	0.03
KAPAAKEA - RESIDENCE LOTS ONE ALII	MOLOKAI	SOUTHEAST	KAMILOLOA	40301	0.00	0.00	0.00

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS

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PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
=====	=====	=====	=====	=====	=====	=====	=====
KAWAIIHAE - RESIDENCE LOTS (MAUKA)	HAWAII	KOHALA	MAHUKONA	80103	0.00	0.08	0.08
KAWAIIHAE - RESIDENCE LOTS MAKAI	HAWAII	KOHALA	MAHUKONA	80103	0.00	0.01	0.01
KEAUKAHA - RESIDENCE LOTS UNIT 2	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.03	0.03
KEKAHA - RESIDENCE LOTS UNIT 2	KAUAI	WAIHEA	KEKAHA	20301	0.00	0.01	0.01
KULA - KEOKEA AG LOTS	MAUI	CENTRAL	KAMAOLE	60304	0.00	0.04	0.04
KULA - RESIDENCE LOTS WAIOMULI 1, 2	MAUI	CENTRAL	KAMAOLE	60304	0.00	0.18	0.18
LUALUALEI - PAHEEMEE RIDGE	OAHU	WAIANAE	LUALUALEI	30302	0.00	0.03	0.03
LUALUALEI - RESERVOIR SITE	OAHU	WAIANAE	LUALUALEI	30302	0.00	0.02	0.02
LUALUALEI - RESIDENCE LOTS MAILIILI	OAHU	WAIANAE	LUALUALEI	30302	0.00	0.04	0.04
MAKUU - FARM LOTS (2 ACRES)	HAWAII	KILAUEA	PAHOA	80801	0.00	0.02	0.02
MAKUU - FARM LOTS (5 ACRE)	HAWAII	KILAUEA	PAHOA	80801	0.00	0.05	0.05
MOLOAA - FARM LOTS	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.01	0.01
MOLOAA - PASTURE LOTS	KAUAI	LIHUE	ANAHOLA	20104	0.00	0.00	0.00
NANAKULI - RESIDENCE LOTS SCATTERED	OAHU	WAIANAE	NANAKULI	30301	0.00	0.01	0.01
NANAKULI - RESIDENCE LOTS SERIES 5-3	OAHU	WAIANAE	NANAKULI	30301	0.00	0.03	0.03
NANAKULI - RESIDENCE LOTS SERIES 6	OAHU	WAIANAE	NANAKULI	30301	0.00	0.02	0.02
NANAKULI - RESIDENCE LOTS SERIES 7-9	OAHU	WAIANAE	NANAKULI	30301	0.00	0.08	0.08
PANAWEA - FARM LOTS PUNA PAPAYA	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.01	0.01
PANAWEA - FARM LOTS (AUWAE ST)	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.02	0.02
PANAWEA - RESIDENCE LOTS UNIT 4	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.02	0.02
PAUKUKALO - RESIDENCE LOTS UNIT 3 PH 3	MAUI	WAILUKU	IAO	60102	0.00	0.01	0.01
PAUKUKALO - RESIDENCE LOTS UNIT 4	MAUI	WAILUKU	IAO	60102	0.00	0.01	0.01
PUUKAPU - FARM LOTS UNIT 2, 2A	HAWAII	WEST MAUNA KEA	WAIHEA	80301	0.00	0.03	0.03
PUUKAPU - PASTURE LOTS	HAWAII	WEST MAUNA KEA	WAIHEA	80301	0.00	0.04	0.04
PUUKAPU - PASTURE LOTS PUUKAPU 3	HAWAII	WEST MAUNA KEA	WAIHEA	80301	0.00	0.04	0.04
PUUKAPU - RESIDENCE LOTS (PUU PELEHU)	HAWAII	WEST MAUNA KEA	WAIHEA	80301	0.00	0.01	0.01
WAIAKEA - RESIDENCE LOTS UNIT 2A-5	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.00	0.01	0.01
WAIANAE - FARM LOTS CARLOS DAIRY	OAHU	WAIANAE	WAIANAE	30303	0.00	0.00	0.00
WAIANAE - RESIDENCE LOTS FREITAS DAIRY	OAHU	WAIANAE	WAIANAE	30303	0.00	0.07	0.07
WAIANAE - RESIDENCE LOTS UNIT 2A-2,3	OAHU	WAIANAE	WAIANAE	30303	0.00	0.06	0.06

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS

PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
WAIHEHU - RESIDENCE LOTS	MAUI	WAILUKU	IAO	60102	0.00	0.04	0.04
WAIMANALO - RESIDENCE LOTS ALA KOA ST	OAHU	WINDWARD	WAIMANALO	30804	0.00	0.00	0.00
WAIMANALO - RESIDENCE LOTS UNIT 10-13	OAHU	WINDWARD	WAIMANALO	30804	0.00	0.14	0.14
WAIMANALO - RESIDENCE LOTS UNIT 8	OAHU	WINDWARD	WAIMANALO	30804	0.00	0.03	0.03
WAIMANALO - RESIDENCE LOTS UNIT 9	OAHU	WINDWARD	WAIMANALO	30804	0.00	0.03	0.03
* Subsubtotal *					0.00	1.78	1.78
** Subtotal **					0.00	1.78	1.78

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REPRODUCED FROM THE  
HAWAIIAN WATER PROJECTS  
PLAN, 1970, CHAPTER 1, PAGE 10

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS

PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
=====							
** DEPARTMENT LAND & NATURAL RESOURCES							
* DIVISION OF STATE PARKS							
COASTAL PARK - MAHAUULA/MAKALAWENA/ETC	HAWAII	HUALALAI	KEAUHOU	80901	0.00	0.00	0.00
OLD KONA AIRPORT EXPANSION	HAWAII	HUALALAI	KEAUHOU	80901	0.00	0.17	0.17
* Subsubtotal *					0.00	0.17	0.17
** Subtotal **					0.00	0.17	0.17

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS  
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PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
<b>** DEPARTMENT TRANSPORTATION</b>							
<b>* AIRPORTS DIVISION</b>							
GENERAL LYMAN FIELD MASTER PLAN	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.03	0.07	0.04
HANA AIRPORT MASTER PLAN	MAUI	HANA	KAWAIPAPA	80502	0.01	0.01	0.00
HONOLULU INTERNATIONAL AIRPORT	OAHU	HONOLULU	MOANALUA	30104	2.00	3.00	1.00
KAHULUI AIRPORT ACCESS ROAD	MAUI	CENTRAL	KAHULUI	60301	0.00	0.00	0.00
KAHULUI AIRPORT MASTER PLAN	MAUI	CENTRAL	KAHULUI	60301	0.09	0.29	0.20
KEAHOLE AIRPORT	HAWAII	HUALALAI	KEAUHOU	80901	0.17	0.34	0.17
LANAI AIRPORT MASTER PLAN	LANAI	CENTRAL	LEEWARD	50102	0.01	0.32	0.31
LIHUE AIRPORT MASTER PLAN	KAUAI	LIHUE	HANAMAULU	20102	0.12	0.72	0.60
MOLOKAI AIRPORT MASTER PLAN	MOLOKAI	CENTRAL	MAUNAWAINUI	40202	0.00	0.02	0.02
<b>* Subsubtotal *</b>					<b>2.43</b>	<b>4.77</b>	<b>2.34</b>
<b>* HARBORS DIVISION</b>							
BARBERS POINT HARBOR	OAHU	PEARL HARBOR	EWA	30204	0.02	0.25	0.23
HILO HARBOR - 2010 MASTER PLAN	HAWAII	NORTHEAST MAUNA LOA	HILO	80401	0.04	0.09	0.05
HONOKOHAU HARBOR EXPANSION	HAWAII	HUALALAI	KEAUHOU	80901	0.08	0.13	0.05
HONOLULU HARBOR - 2010 MASTER PLAN	OAHU	HONOLULU	KALIHI	30103	0.20	0.31	0.11
KAHULUI HARBOR - 2010 MASTER PLAN	MAUI	CENTRAL	KAHULUI	60301	0.04	0.09	0.05
KAUMALAPAU HARBOR - 2010 MASTER PLAN	LANAI	KAA	KAUMALAPAU	50302	0.01	0.02	0.01
KAUNAKAKAI HARBOR - 2010 MASTER PLAN	MOLOKAI	SOUTHEAST	KAMILOLOA	40301	0.01	0.01	0.00
KAWAIIHAE BOAT HARBOR	HAWAII	KOHALA	MAHUKONA	80103	0.00	0.09	0.09
KAWAIIHAE HARBOR - 2010 MASTER PLAN	HAWAII	KOHALA	MAHUKONA	80103	0.04	0.14	0.10
KEEHI LAGOON DEVELOPMENT	OAHU	HONOLULU	MOANALUA	30104	0.00	1.08	1.08
MAALAEA BOAT HARBOR	MAUI	WAILUKU	WAIKAPU	60101	0.02	0.08	0.06
NAWILIWILI HARBOR - 2010 MASTER PLAN	KAUAI	LIHUE	HANAMAULU	20102	0.05	0.10	0.05
PORT ALLEN HARBOR - 2010 MASTER PLAN	KAUAI	LIHUE	KOLOA	20101	0.01	0.02	0.01

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
PROJECTED WATER NEEDS

PROJECT NAME	ISLAND	HYDROLOGIC SECTOR	AQUIFER SYSTEM	AQUIFER CODE	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITIONAL DEMAND (MGD)
* Subsubtotal *					0.52	2.41	1.89
* HIGHWAYS DIVISION							
AHUKINI RD & KAPULE HWY LANDSCAPING	KAUAI	LIHUE	HANAMAULU	20102	0.00	0.00	0.00
FORT WEAVER ROAD LANDSCAPING	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.00	0.00
FORT WEAVER ROAD UNIT 2 PH II	OAHU	PEARL HARBOR	WAIPAHU	30203	0.00	0.00	0.00
H-3 KANEOME INTERCHANGE	OAHU	WINDWARD	KOOLAUPOKO	30803	0.00	0.00	0.00
H-3 NORTH HALAWA VALLEY HWY UNIT I, PH I	OAHU	PEARL HARBOR	WAIMALU	30201	0.00	0.00	0.00
H-3 NORTH HALAWA VALLEY HWY UNIT I, PHII	OAHU	PEARL HARBOR	WAIMALU	30201	0.00	0.00	0.00
H-3 NORTH HALAWA VALLEY HWY UNIT II	OAHU	PEARL HARBOR	WAIMALU	30201	0.00	0.00	0.00
H-3 WINDWARD HIGHWAY	OAHU	WINDWARD	KOOLAUPOKO	30803	0.00	0.00	0.00
KALANIANAOLE HWY - PH I	OAHU	HONOLULU	WAIALAE	30105	0.00	0.03	0.03
KALANIANAOLE HWY PH II	OAHU	HONOLULU	WAIALAE	30105	0.00	0.03	0.03
KALANIANAOLE HWY PH III	OAHU	HONOLULU	WAIALAE	30105	0.00	0.03	0.03
KAMEHAMEHA HWY WEED JCT HALEIWA PH I	OAHU	NORTH	WAIALUA	30402	0.00	0.03	0.03
KAMEHAMEHA HWY WEED JCT HALEIWA PH II	OAHU	NORTH	WAIALUA	30402	0.00	0.03	0.03
NIMITZ HWY BEAUTIFICATION	OAHU	HONOLULU	MOANALUA	30104	0.00	0.00	0.00
* Subsubtotal *					0.00	0.15	0.15
** Subtotal **					2.95	7.33	4.38
*** Total ***					2.95	45.33	42.38

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## **APPENDIX F**

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### **LISTING OF STATE PROJECTS AND PROJECTED WATER NEEDS BY HYDROLOGIC AREAS**

## APPENDIX F

LISTING OF STATE PROJECTS  
AND PROJECTED WATER NEEDS BY HYDROLOGIC AREAS

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LISTING OF STATE PROJECTS BY HYDROLOGIC UNIT

AQUIFER SYSTEM	AQUIFER CODE	DEPARTMENT	PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDTNL DEMAND (MGD)
** ISLAND OF KAUAI						
* HYDROLOGIC SECTOR = LIHUE						
KOLOA	20101	BUDGET & FINANCE	WELIWELI PROJECT	0.00	0.20	0.20
KOLOA	20101	TRANSPORTATION	PORT ALLEN HARBOR - 2010 MASTER PLAN	0.01	0.02	0.01
HANAMAULU	20102	BUDGET & FINANCE	PUHI	0.00	0.01	0.01
HANAMAULU	20102	BUDGET & FINANCE	KAUAI RENTAL	0.00	0.05	0.05
HANAMAULU	20102	BUDGET & FINANCE	AMFAC PARCEL - HANAMAULU	0.00	0.21	0.21
HANAMAULU	20102	BUDGET & FINANCE	KAUAI ELDERLY	0.00	0.03	0.03
HANAMAULU	20102	BUDGET & FINANCE	ARC OF HAWAII - PROJECT #10 (LIHUE)	0.00	0.00	0.00
HANAMAULU	20102	EDUCATION	HANAMAULU/WAILUA ELEMENTARY SCHOOL	0.00	0.06	0.06
HANAMAULU	20102	TRANSPORTATION	AHUKINI RD & KAPULE HWY LANDSCAPING	0.00	0.00	0.00
HANAMAULU	20102	BUDGET & FINANCE	MOLOKOA PROJECT	0.00	0.59	0.59
HANAMAULU	20102	TRANSPORTATION	NAWILIWILI HARBOR - 2010 MASTER PLAN	0.05	0.10	0.05
HANAMAULU	20102	TRANSPORTATION	LIHUE AIRPORT MASTER PLAN	0.12	0.72	0.60
WAILUA	20103	BUDGET & FINANCE	WAILUA MAUKA	0.00	0.96	0.96
WAILUA	20103	BUDGET & FINANCE	WAILUA MAKAI	0.00	0.13	0.13
WAILUA	20103	AGRICULTURE	WAILUA AGRICULTURAL PARK	0.00	1.00	1.00
ANAHOLA	20104	HAWAIIAN HOME LANDS	MOLOAA - PASTURE LOTS	0.00	0.00	0.00
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - RESIDENCE LOTS UNIT3	0.00	0.02	0.02
ANAHOLA	20104	HAWAIIAN HOME LANDS	MOLOAA - FARM LOTS	0.00	0.01	0.01
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - RESIDENCE LOTS UNIT 4	0.00	0.04	0.04
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - RESIDENCE LOTS UNIT 5	0.00	0.02	0.02
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - RESIDENCE LOTS J & K	0.00	0.01	0.01
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - RESIDENCE LOTS (VILLAGE)	0.00	0.01	0.01
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - RESIDENCE LOTS BAYVIEW	0.00	0.03	0.03
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - RESIDENCE LOTS M	0.00	0.02	0.02
ANAHOLA	20104	HAWAIIAN HOME LANDS	ANAHOLA - FARM LOTS UNIT 1A INCREMENT 2	0.00	0.00	0.00
ANAHOLA	20104	EDUCATION	KAPAA INTERMEDIATE SCHOOL	0.00	0.09	0.09
ANAHOLA	20104	EDUCATION	KAPAA II ELEMENTARY SCHOOL	0.00	0.06	0.06

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**HAWAII WATER PLAN**  
**STATE WATER PROJECTS PLAN**  
**LISTING OF STATE PROJECTS BY HYDROLOGIC UNIT**

AQUIFER SYSTEM			PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDNL DEMAND (MGD)
ANAHOLA			MOLOAA AGRICULTURAL PARK	0.00	3.80	3.80
* Subsubtotal *				0.18	8.19	8.01
* HYDROLOGIC SECTOR = WAIMEA						
KEKAHA			KEKAHA - RESIDENCE LOTS UNIT2	0.00	0.01	0.01
MAKAWELI			HANAPEPE STATE LAND - HANAPEPE HEIGHTS	0.00	0.26	0.26
* Subsubtotal *				0.00	0.27	0.27
** Subtotal **				0.18	8.46	8.28

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LISTING OF STATE PROJECTS BY HYDROLOGIC UNIT

AQUIFER SYSTEM	AQUIFER CODE	DEPARTMENT	PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDTNL DEMAND (MGD)
<b>** ISLAND OF OAHU</b>						
<b>* HYDROLOGIC SECTOR = HONOLULU</b>						
NUUANU	30102	BUDGET & FINANCE	KAKAAKO - FAMILY RENTAL	0.00	0.07	0.07
NUUANU	30102	BUSINESS & ECONOMIC DEVELOPMENT	KAKAAKO REDEVELOPMENT PROJECT	0.00	0.00	0.00
NUUANU	30102	BUDGET & FINANCE	KAKAAKO - ELDERLY	0.00	0.08	0.08
KALIHI	30103	BUDGET & FINANCE	KAPUNA II	0.00	0.10	0.10
KALIHI	30103	BUDGET & FINANCE	HALONA STREET	0.00	0.00	0.00
KALIHI	30103	BUSINESS & ECONOMIC DEVELOPMENT	ALOHA TOWER DEVELOPMENT	0.00	0.00	0.00
KALIHI	30103	TRANSPORTATION	HONOLULU HARBOR - 2010 MASTER PLAN	0.20	0.31	0.11
MOANALUA	30104	TRANSPORTATION	NIMITZ HWY BEAUTIFICATION	0.00	0.00	0.00
MOANALUA	30104	TRANSPORTATION	HONOLULU INTERNATIONAL AIRPORT	2.00	3.00	1.00
MOANALUA	30104	TRANSPORTATION	KEEHI LAGOON DEVELOPMENT	0.00	1.08	1.08
WAIALAE	30105	TRANSPORTATION	KALANIANA'OLE HWY - PH I	0.00	0.03	0.03
WAIALAE	30105	TRANSPORTATION	KALANIANA'OLE HWY PH II	0.00	0.03	0.03
WAIALAE	30105	TRANSPORTATION	KALANIANA'OLE HWY PH III	0.00	0.03	0.03
<b>* Subsubtotal *</b>				2.20	4.73	2.53
<b>* HYDROLOGIC SECTOR = PEARL HARBOR</b>						
WAIMALU	30201	TRANSPORTATION	H-3 NORTH HALAWA VALLEY HWY UNIT I, PH I	0.00	0.00	0.00
WAIMALU	30201	TRANSPORTATION	H-3 NORTH HALAWA VALLEY HWY UNIT I, PHII	0.00	0.00	0.00
WAIMALU	30201	TRANSPORTATION	H-3 NORTH HALAWA VALLEY HWY UNIT II	0.00	0.00	0.00
WAIMALU	30201	BUDGET & FINANCE	HALE MOHALU	0.00	0.07	0.07
WAIPAHU	30203	AGRICULTURE	LIVESTOCK AGRICULTURAL PARK	0.00	3.00	3.00
WAIPAHU	30203	BUDGET & FINANCE	CROWN	0.00	0.03	0.03
WAIPAHU	30203	BUDGET & FINANCE	CROWN ELDERLY	0.00	0.08	0.08
WAIPAHU	30203	EDUCATION	HOAEAE ELEMENTARY SCHOOL	0.00	0.06	0.06
WAIPAHU	30203	EDUCATION	EWA II ELEMENTARY SCHOOL	0.00	0.06	0.06
WAIPAHU	30203	EDUCATION	MILILANI IV ELEMENTARY SCHOOL	0.00	0.06	0.06

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
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AQUIFER			EXISTING			ULTIMATE			ADDTNL		
AQUIFER SYSTEM			DEMAND			DEMAND			DEMAND		
CODE DEPARTMENT			(MGD)			(MGD)			(MGD)		
PROJECT NAME											
=====											
WAIPAHU	30203	EDUCATION	MILILANI V ELEMENTARY SCHOOL	0.00	0.06	0.06					
WAIPAHU	30203	EDUCATION	WEST LOCH ELEMENTARY SCHOOL	0.00	0.06	0.06					
WAIPAHU	30203	TRANSPORTATION	FORT WEAVER ROAD UNIT 2 PH II	0.00	0.00	0.00					
WAIPAHU	30203	TRANSPORTATION	FORT WEAVER ROAD LANDSCAPING	0.00	0.00	0.00					
EWA	30204	BUDGET & FINANCE	KAPOLEI VILLAGE	0.00	2.50	2.50					
EWA	30204	BUDGET & FINANCE	KAPOLEI VILLAGE RENTALS	0.00	0.21	0.21					
EWA	30204	BUDGET & FINANCE	KAPOLEI VILLAGE ELDERLY	0.00	0.22	0.22					
EWA	30204	EDUCATION	KAPOLEI ELEMENTARY SCHOOL	0.00	0.06	0.06					
EWA	30204	EDUCATION	KAPOLEI INTERMEDIATE SCHOOL	0.00	0.09	0.09					
EWA	30204	EDUCATION	KAPOLEI HIGH SCHOOL	0.00	0.12	0.12					
EWA	30204	TRANSPORTATION	BARBERS POINT HARBOR	0.02	0.25	0.23					
* Subsubtotal *				0.02	6.93	6.91					
=====											
* HYDROLOGIC SECTOR = WAIANAE											
NANAKULI	30301	HAWAIIAN HOME LANDS	NANAKULI - RESIDENCE LOTS SERIES 6	0.00	0.02	0.02					
NANAKULI	30301	HAWAIIAN HOME LANDS	NANAKULI - RESIDENCE LOTS SERIES 5-3	0.00	0.03	0.03					
NANAKULI	30301	BUDGET & FINANCE	KEYSTONE	0.00	0.20	0.20					
NANAKULI	30301	HAWAIIAN HOME LANDS	NANAKULI - RESIDENCE LOTS SERIES 7-9	0.00	0.08	0.08					
NANAKULI	30301	HAWAIIAN HOME LANDS	NANAKULI - RESIDENCE LOTS SCATTERED	0.00	0.01	0.01					
LUALUALEI	30302	HAWAIIAN HOME LANDS	LUALUALEI - PAHEEHOO RIDGE	0.00	0.03	0.03					
LUALUALEI	30302	HAWAIIAN HOME LANDS	LUALUALEI - RESIDENCE LOTS MAILILI	0.00	0.04	0.04					
LUALUALEI	30302	HAWAIIAN HOME LANDS	LUALUALEI - RESERVOIR SITE	0.00	0.02	0.02					
WAIANAE	30303	AGRICULTURE	WAIANAE AGRICULTURAL PARK	0.00	0.38	0.38					
WAIANAE	30303	HAWAIIAN HOME LANDS	WAIANAE - RESIDENCE LOTS UNIT 2A-2,3	0.00	0.06	0.06					
WAIANAE	30303	HAWAIIAN HOME LANDS	WAIANAE - RESIDENCE LOTS FREITAS DAIRY	0.00	0.07	0.07					
WAIANAE	30303	HAWAIIAN HOME LANDS	WAIANAE - FARM LOTS CARLOS DAIRY	0.00	0.00	0.00					
WAIANAE	30303	EDUCATION	WAIANAE III ELEMENTARY SCHOOL	0.00	0.06	0.06					
MAKAHA	30304	BUDGET & FINANCE	MAKAHA MEADOWS EAST II	0.00	0.00	0.00					

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HAWAII WATER PLAN  
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AQUIFER SYSTEM	AQUIFER CODE	DEPARTMENT	PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDTNL DEMAND (MGD)
<b>* Subsubtotal *</b>						
				0.00	1.00	1.00
<b>* HYDROLOGIC SECTOR = NORTH</b>						
WAIALUA	30402	TRANSPORTATION	KAMEHAMEHA HWY WEED JCT HALEIWA PH I	0.00	0.03	0.03
WAIALUA	30402	TRANSPORTATION	KAMEHAMEHA HWY WEED JCT HALEIWA PH II	0.00	0.03	0.03
<b>* Subsubtotal *</b>						
				0.00	0.06	0.06
<b>* HYDROLOGIC SECTOR = CENTRAL</b>						
WAHIAWA	30501	BUDGET & FINANCE	LEILEHUA VILLAGE	0.00	0.04	0.04
WAHIAWA	30501	BUDGET & FINANCE	WAHIAWA ELDERLY I	0.00	0.04	0.04
WAHIAWA	30501	BUDGET & FINANCE	WAHIAWA ELDERLY II	0.00	0.04	0.04
WAHIAWA	30501	BUDGET & FINANCE	WHITMORE CIRCLE	0.00	0.03	0.03
<b>* Subsubtotal *</b>						
				0.00	0.15	0.15
<b>* HYDROLOGIC SECTOR = WINDWARD</b>						
KOOLAULOA	30601	AGRICULTURE	KAHUKU AGRICULTURAL PARK	0.00	2.00	2.00
WAIMANALO	30601	AGRICULTURE	WAIMANALO AGRICULTURAL PARK	0.00	0.98	0.98
KOOLAULOA	30601	EDUCATION	KAHUKU ELEMENTARY SCHOOL	0.00	0.06	0.06
KOOLAUPOKO	30603	BUDGET & FINANCE	WAIHAOLE	0.00	0.06	0.06
KOOLAUPOKO	30603	TRANSPORTATION	H-3 WINDWARD HIGHWAY	0.00	0.00	0.00
KOOLAUPOKO	30603	TRANSPORTATION	H-3 KANEOME INTERCHANGE	0.00	0.00	0.00
WAIMANALO	30604	HAWAIIAN HOME LANDS	WAIMANALO - RESIDENCE LOTS UNIT 8	0.00	0.03	0.03
WAIMANALO	30604	HAWAIIAN HOME LANDS	WAIMANALO - RESIDENCE LOTS ALA KOA ST	0.00	0.00	0.00
WAIMANALO	30604	HAWAIIAN HOME LANDS	WAIMANALO - RESIDENCE LOTS UNIT 10-13	0.00	0.14	0.14
WAIMANALO	30604	HAWAIIAN HOME LANDS	WAIMANALO - RESIDENCE LOTS UNIT 9	0.00	0.03	0.03

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LISTING OF STATE PROJECTS BY HYDROLOGIC UNIT

AQUIFER SYSTEM	AQUIFER CODE	DEPARTMENT	PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDTNL DEMAND (MGD)
<b>** ISLAND OF MOLOKAI</b>						
<b>* HYDROLOGIC SECTOR = CENTRAL</b>						
	HOOLEHUA	40201 HAWAIIAN HOME LANDS	HOOLEHUA - RESIDENCE LOTS UNIT 1	0.00	0.01	0.01
	HOOLEHUA	40201 HAWAIIAN HOME LANDS	HOOLEHUA - RESIDENCE LOTS UNIT 2 & 3	0.00	0.04	0.04
	HOOLEHUA	40201 HAWAIIAN HOME LANDS	HOOLEHUA - FARM LOTS SCATTERED	0.00	0.01	0.01
	HOOLEHUA	40201 HAWAIIAN HOME LANDS	HOOLEHUA - FARM LOTS NEW AREAS	0.00	0.02	0.02
	HOOLEHUA	40201 HAWAIIAN HOME LANDS	HOOLEHUA - PASTURE LOTS EXISTING	0.00	0.01	0.01
	HOOLEHUA	40201 HAWAIIAN HOME LANDS	HOOLEHUA - PASTURE LOTS NEW AREAS	0.00	0.01	0.01
	MAUNAWAINUI	40202 HAWAIIAN HOME LANDS	HOOLEHUA - FARM LOTS AIRPORT AREA	0.00	0.04	0.04
	MAUNAWAINUI	40202 TRANSPORTATION	MOLOKAI AIRPORT MASTER PLAN	0.00	0.02	0.02
	KUALAPUU	40203 HAWAIIAN HOME LANDS	KALAMAULA - RESIDENCE LOTS	0.00	0.08	0.08
	KUALAPUU	40203 HAWAIIAN HOME LANDS	KALAMAULA - RESIDENCE LOTS NEW AREAS	0.00	0.05	0.05
	KUALAPUU	40203 HAWAIIAN HOME LANDS	KALAMAULA - FARM LOTS	0.00	0.04	0.04
	KUALAPUU	40203 HAWAIIAN HOME LANDS	KALAMAULA - PASTURE LOTS UPPER AREAS	0.00	0.01	0.01
	<b>* Subsubtotal *</b>			0.00	0.34	0.34
<b>* HYDROLOGIC SECTOR = SOUTHEAST</b>						
	KAMILOLOA	40301 HAWAIIAN HOME LANDS	KAPAAKEA - RESIDENCE LOTS ONE ALII	0.00	0.00	0.00
	KAMILOLOA	40301 HAWAIIAN HOME LANDS	KAPAAKEA - RESIDENCE LOTS	0.00	0.03	0.03
	KAMILOLOA	40301 HAWAIIAN HOME LANDS	KAPAAKEA - FARM LOTS	0.00	0.01	0.01
	KAMILOLOA	40301 HAWAIIAN HOME LANDS	KAPAAKEA - PASTURE LOTS	0.00	0.01	0.01
	KAMILOLOA	40301 TRANSPORTATION	KAUNAKAKAI HARBOR - 2010 MASTER PLAN	0.01	0.01	0.00
	<b>* Subsubtotal *</b>			0.01	0.08	0.05
	<b>** Subtotal **</b>			0.01	0.40	0.39

**HAWAII WATER PLAN  
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			EXISTING	ULTIMATE	ADDTNL
			DEMAND	DEMAND	DEMAND
			(MGD)	(MGD)	(MGD)
AQUIFER SYSTEM	AQUIFER CODE DEPARTMENT	PROJECT NAME			
=====					
** ISLAND OF LANAI					
* HYDROLOGIC SECTOR = CENTRAL					
LEEWARD	50102 TRANSPORTATION	LANAI AIRPORT MASTER PLAN	0.01	0.32	0.31
* Subsubtotal *					
			0.01	0.32	0.31
* HYDROLOGIC SECTOR = KAA					
KAUMALAPAU	50302 TRANSPORTATION	KAUMALAPAU HARBOR - 2010 MASTER PLAN	0.01	0.02	0.01
* Subsubtotal *					
			0.01	0.02	0.01
** Subtotal **					
			0.02	0.34	0.32

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HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN  
LISTING OF STATE PROJECTS BY HYDROLOGIC UNIT

AQUIFER SYSTEM	AQUIFER CODE	DEPARTMENT	PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDTNL DEMAND (MGD)
<b>** ISLAND OF MAUI</b>						
<b>* HYDROLOGIC SECTOR = WAILUKU</b>						
WAIKAPU	60101	TRANSPORTATION	MAALAEA BOAT HARBOR	0.02	0.08	0.06
IAO	60102	HAWAIIAN HOME LANDS	WAIHEHU - RESIDENCE LOTS	0.00	0.04	0.04
IAO	60102	HAWAIIAN HOME LANDS	PAUKUKALO - RESIDENCE LOTS UNIT 4	0.00	0.01	0.01
IAO	60102	BUDGET & FINANCE	WAIHEHU STATE LAND A PHASE II	0.00	0.06	0.06
IAO	60102	BUDGET & FINANCE	WAIHEHU HANDICAPPED A PHASE III	0.00	0.01	0.01
IAO	60102	BUDGET & FINANCE	WAIHEHU ELDERLY A PHASE III	0.00	0.02	0.02
IAO	60102	BUDGET & FINANCE	WAIHEHU TERRACE, INCR. C, PHASE V	0.00	0.15	0.15
IAO	60102	BUDGET & FINANCE	WAIHEHU FAMILY RENTAL C PHASE VI	0.00	0.04	0.04
IAO	60102	HAWAIIAN HOME LANDS	PAUKUKALO - RESIDENCE LOTS UNIT 3 PH 3	0.00	0.01	0.01
IAO	60102	EDUCATION	MAUI-WAENA INTERMEDIATE SCHOOL	0.00	0.09	0.09
IAO	60102	BUDGET & FINANCE	WAIHEHU TERRACE, INCR. B, PHASE IV	0.00	0.14	0.14
<b>* Subsubtotal *</b>				0.02	0.65	0.63
<b>* HYDROLOGIC SECTOR = LAHAINA</b>						
HONOKOWAI	60203	BUDGET & FINANCE	HONOKOWAI RENTAL	0.00	0.11	0.11
LAUNIPOKO	60204	BUDGET & FINANCE	LAHAINA MASTER PLAN	0.00	3.37	3.37
<b>* Subsubtotal *</b>				0.00	3.48	3.48
<b>* HYDROLOGIC SECTOR = CENTRAL</b>						
KAHULUI	60301	EDUCATION	KAMEHAMEHA III (ANNEX)	0.00	0.06	0.06
KAHULUI	60301	TRANSPORTATION	KAHULUI AIRPORT ACCESS ROAD	0.00	0.00	0.00
KAHULUI	60301	TRANSPORTATION	KAHULUI HARBOR - 2010 MASTER PLAN	0.04	0.09	0.05
KAHULUI	60301	TRANSPORTATION	KAHULUI AIRPORT MASTER PLAN	0.09	0.29	0.20
MAKAWAO	60303	EDUCATION	UPCOUNTRY HIGH SCHOOL	0.00	0.12	0.12
KAMAOLE	60304	HAWAIIAN HOME LANDS	WAILUKU - RESIDENCE LOTS WAIHOLI 1, 2	0.00	0.18	0.18

HAWAII WATER PLAN  
STATE WATER PROJECTS PLAN

LISTING OF STATE PROJECTS BY HYDROLOGIC UNIT

			EXISTING	ULTIMATE	ADDTNL
			DEMAND	DEMAND	DEMAND
			(MGD)	(MGD)	(MGD)
AQUIFER SYSTEM					
AQUIFER CODE DEPARTMENT					
PROJECT NAME					
*****					
* KAMAOLE	60304 HAWAIIAN HOME LANDS	KULA - KEOKEA AG LOTS	0.00	0.04	0.04
KAMAOLE	60304 EDUCATION	KIHEI II ELEMENTARY SCHOOL	0.00	0.06	0.06
* Subsubtotal *			0.00	0.10	0.10
* HYDROLOGIC SECTOR = KAWAIPAPA			0.13	0.84	0.71
* HYDROLOGIC SECTOR = HANA			0.01	0.01	0.00
KAWAIPAPA	60502 TRANSPORTATION	HANA AIRPORT MASTER PLAN	0.01	0.01	0.00
KAWAIPAPA	60502 BUDGET & FINANCE	NIUMALU, HANA, MAUI	0.00	0.04	0.04
* Subsubtotal *			0.01	0.05	0.04
* HYDROLOGIC SECTOR = KAHIKINUI			0.00	0.01	0.01
LUALAILUA	60603 HAWAIIAN HOME LANDS	KAHIKINUI - HOMESTEAD	0.00	0.01	0.01
* Subsubtotal *			0.00	0.01	0.01
** Subtotal **			0.16	5.03	4.87

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AQUIFER SYSTEM	AQUIFER CODE	DEPARTMENT	PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDITNL DEMAND (MGD)
<b>** ISLAND OF HAWAII</b>						
<b>* HYDROLOGIC SECTOR = KOHALA</b>						
MAHUKONA	80103	HAWAIIAN HOME LANDS	KAWAIHAE - RESIDENCE LOTS MAKAI	0.00	0.01	0.01
MAHUKONA	80103	BUDGET & FINANCE	NOELANI II - PUBLIC HOUSING	0.00	0.01	0.01
MAHUKONA	80103	HAWAIIAN HOME LANDS	KAWAIHAE - RESIDENCE LOTS (MAUKA)	0.00	0.08	0.08
MAHUKONA	80103	TRANSPORTATION	KAWAIHAE HARBOR - 2010 MASTER PLAN	0.04	0.14	0.10
MAHUKONA	80103	TRANSPORTATION	KAWAIHAE BOAT HARBOR	0.00	0.09	0.09
<b>* Subsubtotal *</b>				0.04	0.33	0.29
<b>* HYDROLOGIC SECTOR = EAST MAUNA KEA</b>						
HAKALAU	80203	HAWAIIAN HOME LANDS	HUMUULA - PASTURE LOTS	0.00	0.00	0.00
<b>* Subsubtotal *</b>				0.00	0.00	0.00
<b>* HYDROLOGIC SECTOR = WEST MAUNA KEA</b>						
WAIMEA	80301	HAWAIIAN HOME LANDS	PUUKAPU - RESIDENCE LOTS (PUU PELEHU)	0.00	0.01	0.01
WAIMEA	80301	BUDGET & FINANCE	LALAMILO/LOWER	0.00	0.04	0.04
WAIMEA	80301	BUDGET & FINANCE	LALAMILO/UPPER	0.00	0.30	0.30
WAIMEA	80301	HAWAIIAN HOME LANDS	PUUKAPU - FARM LOTS UNIT 2, 2A	0.00	0.03	0.03
WAIMEA	80301	HAWAIIAN HOME LANDS	PUUKAPU - PASTURE LOTS	0.00	0.04	0.04
WAIMEA	80301	HAWAIIAN HOME LANDS	PUUKAPU - PASTURE LOTS PUUKAPU 3	0.00	0.04	0.04
WAIMEA	80301	EDUCATION	WAIKOLOA/WAIMEA ELEMENTARY SCHOOL	0.00	0.06	0.06
WAIMEA	80301	AGRICULTURE	WAIMEA AGRICULTURAL PARK - LALAMILO ADD	0.00	0.81	0.81
<b>* Subsubtotal *</b>				0.00	1.33	1.33
<b>* HYDROLOGIC SECTOR = NORTHEAST MAUNA LOA</b>						
HILO	80401	AGRICULTURE	PANAWEA AGRICULTURAL PARK	0.00	2.30	2.30

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**HAWAII WATER PLAN**  
**STATE WATER PROJECTS PLAN**  
**LISTING OF STATE PROJECTS BY HYDROLOGIC UNIT**

AQUIFER SYSTEM			PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDTNL DEMAND (MGD)
HILO	80401 HAWAIIAN HOME LANDS	KEAUKAHA - RESIDENCE LOTS UNIT 2	0.00	0.03	0.03	
HILO	80401 HAWAIIAN HOME LANDS	PANAWEA - FARM LOTS (AUWAE ST)	0.00	0.02	0.02	
HILO	80401 HAWAIIAN HOME LANDS	WAIKAE - RESIDENCE LOTS UNIT 2A-5	0.00	0.01	0.01	
HILO	80401 BUDGET & FINANCE	HAWAII COMMUNITY COLLEGE VIII ('89-'90)	0.00	0.00	0.00	
HILO	80401 BUDGET & FINANCE	PIIHONUA MEADOWS	0.00	0.03	0.03	
HILO	80401 BUDGET & FINANCE	HALE NAMA OLAMA	0.00	0.04	0.04	
HILO	80401 HAWAIIAN HOME LANDS	PANAWEA - FARM LOTS PUNA PAPAYA	0.00	0.01	0.01	
HILO	80401 HAWAIIAN HOME LANDS	PANAWEA - RESIDENCE LOTS UNIT 4	0.00	0.02	0.02	
HILO	80401 BUDGET & FINANCE	HAWAII COMMUNITY COLLEGE IX ('90-'91)	0.00	0.00	0.00	
HILO	80401 BUDGET & FINANCE	HAWAII COMMUNITY COLLEGE X ('91-'92)	0.00	0.00	0.00	
HILO	80401 TRANSPORTATION	HILO HARBOR - 2010 MASTER PLAN	0.04	0.09	0.05	
HILO	80401 TRANSPORTATION	GENERAL LYMAN FIELD MASTER PLAN	0.03	0.07	0.04	
KEAAU	80402 EDUCATION	NEW KEEAU ELEMENTARY SCHOOL	0.00	0.06	0.06	
* Subsubtotal *			0.07	2.68	2.61	
* HYDROLOGIC SECTOR = SOUTHEAST MAUNA LOA						
KALAE	80504 HAWAIIAN HOME LANDS	KAMAEOA - PUUEO FARM LOTS	0.00	0.01	0.01	
KALAE	80504 HAWAIIAN HOME LANDS	KAMAEOA - PASTURE LOTS	0.00	0.01	0.01	
* Subsubtotal *			0.00	0.02	0.02	
* HYDROLOGIC SECTOR = SOUTHWEST MAUNA LOA						
KAAPUNA	80602 BUDGET & FINANCE	MILOLII SELF-HELP PROGRAM	0.00	0.15	0.15	
KEALAKEKUA	80603 EDUCATION	NEW KONAWAENA ELEMENTARY SCHOOL	0.00	0.06	0.06	
* Subsubtotal *			0.00	0.21	0.21	
* HYDROLOGIC SECTOR = KILAUEA						
PAHOA	80801 AGRICULTURE	PAHOA AGRICULTURAL PARK PHASE I	0.00	2.05	2.05	

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AQUIFER SYSTEM	AQUIFER CODE	DEPARTMENT	PROJECT NAME	EXISTING DEMAND (MGD)	ULTIMATE DEMAND (MGD)	ADDTNL DEMAND (MGD)
PAHOA	80801	AGRICULTURE	PAHOA AGRICULTURAL PARK PHASE II	0.00	0.94	0.94
PAHOA	80801	HAWAIIAN HOME LANDS	MAKUU - FARM LOTS (2 ACRES)	0.00	0.02	0.02
PAHOA	80801	HAWAIIAN HOME LANDS	MAKUU - FARM LOTS (5 ACRE)	0.00	0.05	0.05
PAHOA	80801	EDUCATION	NEW PAHOA ELEMENTARY SCHOOL	0.00	0.08	0.08
KEAIWA	80804	BUSINESS & ECONOMIC DEVELOPMENT	SPACE LAUNCH FACILITY - PALIMA POINT	0.00	0.18	0.18
* Subsubtotal *				0.00	3.28	3.28
* HYDROLOGIC SECTOR = HUALALAI						
KEAUHOU	80901	LAND & NATURAL RESOURCES	OLD KONA AIRPORT EXPANSION	0.00	0.17	0.17
KEAUHOU	80901	TRANSPORTATION	HONOKOHOU HARBOR EXPANSION	0.08	0.13	0.05
KEAUHOU	80901	BUSINESS & ECONOMIC DEVELOPMENT	HAWAII OCEAN SCIENCE & TECHNOLOGY PARK	0.00	0.39	0.39
KEAUHOU	80901	BUSINESS & ECONOMIC DEVELOPMENT	NATURAL ENERGY LABORATORY OF HAWAII	0.00	0.12	0.12
KEAUHOU	80901	TRANSPORTATION	KEAHOLE AIRPORT	0.17	0.34	0.17
KEAUHOU	80901	LAND & NATURAL RESOURCES	COASTAL PARK - MAHAIULA/MAKALAWENA/ETC	0.00	0.00	0.00
KEAUHOU	80901	AGRICULTURE	KE-AHOLE AGRICULTURAL PARK PHASE I	0.00	0.33	0.33
KEAUHOU	80901	AGRICULTURE	KE-AHOLE AGRICULTURAL PARK PHASE II	0.00	0.57	0.57
KEAUHOU	80901	BUDGET & FINANCE	LA'ILANI	0.00	0.08	0.08
KEAUHOU	80901	BUDGET & FINANCE	KEALAKEHE PLANNED COMMUNITY - PHASE I	0.00	0.27	0.27
KEAUHOU	80901	BUDGET & FINANCE	KEALAKEHE MASTER PLAN	0.00	4.62	4.62
KEAUHOU	80901	EDUCATION	WEST HAWAII ELEMENTARY SCHOOL	0.00	0.06	0.06
* Subsubtotal *				0.25	7.08	6.83
** Subtotal **				0.38	14.93	14.57
*** Total ***				2.95	45.33	42.38

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# PLANNED STATE WATER DEVELOPMENT PROJECTS

## DIVISION OF WATER AND LAND DEVELOPMENT

JOB NO.	PROJECT NAME	PROJECT DESCRIPTION
COUNTY OF HAWAII		
22-HW-K	Hakalau Water Project	Construction of Hakalau Water System
17-HW-B	Kau Exploratory Well	Plans, design & drilling of test holes & exploratory wells including casing & conducting pump tests
15-HW-A	Kawaihae Exploratory Well	Plans, design & construction for drilling exploratory well approx. 1100 ft. deep with casing
15-HW-B	Kawaihae Well Development	Development of well consisting of pump, controls & pipeline with appurtenant & incidental work
8-HW-B	Keel No. 4 Well	Plans, design & drilling of well, installing casing & pump testing with appurtenant & incidental work
8-HW-C	North Kona Exploratory Well	Plans, design & drilling of expl. well, installing casing & pump testing with appurtenant & incidental work
2-HW-F	Puu Pulehu Reservoir, PH I	Construction of improvements to Puu Pulehu Reservoir
2-HW-H	Upper Hamakua Ditch, PH I	Plans, design & construction for incremental dev, renovation & rehab of upper Hamakua Ditch for the Waimea Irrigation System
2-HW-G	Upper Hamakua Ditch	Plans, design & construction for incremental dev, renovation & rehab of upper Hamakua Ditch for the Waimea Irrigation System
48-HW-D	Puukapu Deepwell	Plans, design & construction of deepwell pump, control center & connecting pipeline
17-HW-E	Kau Development	Plans, land acq, design & constr of pump, controls, reservoir, connecting pipeline & other appurtenant work

JOB NO.	PROJECT NAME	PROJECT DESCRIPTION
8-HW-D	Keel No 4 Well	Plans, land acq, design & constr of pump, controls, reservoir, connecting pipeline & other appurtenant work
8-HW-H	North Kona Well Development	Plans, land acq, design & constr of pump, controls, connecting pipeline & other appurtenant work
48-HW-E	Wtr Res - Hamakua Development	Plans & design of pump, controls, conn pipeline & other appur work
17-HW-L	Hualalai Exploratory	Plans, land acq, design & constr of expl well approx 1200 ft deep, incl drilling, casing, pump testing & other incidental & appurtenant work
8-HW-F	Kainaliu Water Dev	Plans, land acq, design & constr for drilling four testholes at ascending elevations, incl casing & pump test of two lower testhole
8-HW-E	Keahole Reservoir & Booster Pump	Plans, land acq, design & constr of tank, booster pump, controls & other incidental & appurtenant wor
8-HW-G	Kahaluu Water Shaft Impr	Plans, design & constr of concrete barrier & relocation of shaft pumps

#### COUNTY OF MAUI

35-MW-L	Kula Water System, Pipeline	Plans to be developed per up country water study committee proposals. Construction of improvements to system. Project necessary to qualify for fed aid financing or reimbursement
35-MW-L1	Kula Water System, Reservoir	2-50 MG res
35-MW-K	Waihee Exploratory Well	Plans, design & drilling of an exploratory well & pump testing incl incidental & appurtenant work
3-9W-D	Waikolu Wells Development	Plans, design & construction of pump, controls & connecting pipeline for Waikolu Wells for Molokai Irrigation System

JOB NO.	PROJECT NAME	PROJECT DESCRIPTION
3-9W-H	Kualapuu Reservoir Impr, PH I	Plans, design & constructing impr consisting of rehabilitating reservoir banks & installing lining & wave dissipators
17-MW-M	Waihikuli Exploratory Well	Plans, land acq, design & constr of expl well, incl casing installation, pump testing, & inci & appur work
35-MW-N	Upcountry water system, Upper Kula	Construction of improvements to upper Kula System
35-MW-L1	Upcountry water system, Lower Kula	Construction of improvement to lower Kula System
CITY AND COUNTY OF HONOLULU		
4-0W-1	Waianae Well No. 2, Expl.	Plans, design & construction of a second well in Waianae Valley
4-0W-U	Waianae Well No. 2, Dev.	
5-0W-A	Waimanalo Watershed PH II	Plans, design & construction of impr to the Waimanalo Irrigation System consisting of a 60 MG reservoir & a closed pressurized distribution pipeline as outlined in the Waimanalo Watershed Plan & as authorized under PL-566 for matching federal funds
4-0W-2	Waiahole Ditch (Kahana Tunnel) Bulkhead Project	Plans, design & construction of impr to capture, store & control water from the dike complex feeding the ditch system incl incidental & appur work
17-0W-A	Makakilo Exploratory Well	Plans, design & drilling of exploratory well including incidental & appurtenant work
17-0W-D	Waialua Monitor Well	Design & drilling a monitor well, installing casing, core sampling & other incidental & appurtenant work
10-0W-A	PIA Exploratory Well	

JOB NO.	PROJECT NAME	PROJECT DESCRIPTION
10-OW-D	Mokuleia Exploratory Well	Plans, land acq, design & constr of expl well, incl casing installation, pump testing & other incidental & appurtenant work
COUNTY OF KAUAI		
13-KW-A	Poipu Exploratory Well E	Plans, design & drilling exploratory well including casing installation, pump testing & other incidental & appurtenant work
17-KW-C	Anahola Exploratory Well	Conduct engineering & economic studies & geologic & hydrologic investigations & exploration & developing surface & ground water
12-KW-18	Makaleha Expl Well No 2	Conduct engineering & economic studies & geologic & hydrologic investigations & exploration & developing surface & ground water resources for consumption & instream uses

## **APPENDIX G**

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**PLANNED STATE WATER DEVELOPMENT PROJECTS BY  
THE DIVISION OF WATER AND LAND DEVELOPMENT**

## APPENDIX G

PLANNED STATE WATER DEVELOPMENT PROJECTS BY  
THE DIVISION OF WATER AND LAND DEVELOPMENT